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DIRECTORY AND PROCEEDINGS, ACADEMY-CONFERENCE - 1966.  
AMERICAN ASSN. FOR THE ADVANCEMENT OF SCIENCE

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ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE, ACADEMY  
CONFERENCE, JUNIOR ACADEMY OF SCIENCE,

THIS DOCUMENT IS A REPORT OF THE 1966 AMERICAN  
ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE (AAAS) ACADEMY AND  
JUNIOR ACADEMY CONFERENCE AND A DIRECTORY TO OVER 40 STATE,  
REGIONAL, AND CITY ACADEMIES. REPORTED WERE (1) THE OFFICERS  
FOR 1966 AND 1967, (2) THE AAAS ACADEMY CONFERENCE COMMITTEES  
FOR 1966, (3) THE PRESIDENTIAL ADDRESS ON "THE REQUISITES OF  
A STRONG ACADEMY," (4) THE 1966 EXECUTIVE COMMITTEE MEETING,  
(5) THE GENERAL MEETINGS, (6) THE BUSINESS MEETING, AND (7)  
THE JUNIOR ACADEMY PROCEEDINGS. THE THEMES OF THE GENERAL  
MEETINGS WERE "THE ROLE OF ACADEMIES OF SCIENCE IN THE FIELDS  
OF SCIENTIFIC PUBLICATIONS" AND "THE ROLE OF STATE AND LOCAL  
ACADEMIES OF SCIENCE IN THE PUBLIC UNDERSTANDING OF SCIENCE."  
THE DIRECTORY LISTS FOR EACH ACADEMY (1) THE OFFICERS FOR  
1966 AND 1967, (2) THE AAAS REPRESENTATIVE, (3) THE SECOND  
DELEGATE TO THE ACADEMY CONFERENCE, (4) THE JUNIOR ACADEMY  
SPONSOR, (5) THE COLLEGIATE ACADEMY SPONSOR, (6) THE SECTIONS  
OF THE ACADEMY, (7) MEMBERSHIP, (8) DATES OF ANNUAL MEETINGS,  
(9) PUBLICATIONS, AND (10) A REPORT OF ACADEMY ACTIVITIES.  
(DS)

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE  
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Dr. Raymond L. Taylor  
Retiring Associate Administrative Secretary  
of A.A.A.S.

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DIRECTORY AND PROCEEDINGS

Academy- Conference — 1966

*affiliated with*

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

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## TABLE OF CONTENTS

FORWARD	1
1966 OFFICERS	2
1967 OFFICERS	2
STANDING COMMITTEES	3
PRESIDENTIAL ADDRESS	4
DIRECTORIES AND ACTIVITIES OF ACADEMIES:	
Alabama . . . . .	8
Arizona . . . . .	10
Arkansas . . . . .	13
California . . . . .	15
Chicago . . . . .	17
Florida . . . . .	18
Georgia . . . . .	20
Hawaiian . . . . .	21
Idaho . . . . .	23
Illinois . . . . .	24
Indiana . . . . .	26
Iowa . . . . .	28
Kansas . . . . .	30
Kentucky . . . . .	32
Louisiana . . . . .	34
Maryland . . . . .	37
Michigan . . . . .	39
Minnesota . . . . .	41
Mississippi . . . . .	44
Missouri . . . . .	46
Montana . . . . .	48
Nebraska . . . . .	50
New Jersey . . . . .	52
New Mexico . . . . .	54
New Orleans . . . . .	56
North Dakota . . . . .	57
Northern New England . . . . .	58
Ohio . . . . .	59
Oklahoma . . . . .	61
Oregon . . . . .	63
Pennsylvania . . . . .	65
Rochester . . . . .	67
St. Louis . . . . .	69
South Carolina . . . . .	70
South Dakota . . . . .	71
Southern California . . . . .	72
Tennessee . . . . .	73
Texas . . . . .	75
Utah . . . . .	77
Virginia . . . . .	79
Washington . . . . .	81
West Virginia . . . . .	83
Wisconsin . . . . .	85

# TABLE OF CONTENTS (continued)

MINUTES - Executive Committee (St. Louis) . . . . .	86
MINUTES - Executive Committee (Washington) . . . . .	90
MINUTES - General Meeting . . . . .	92
MINUTES - Business Meeting . . . . .	96
THE ROLE OF THE STATE AND LOCAL ACADEMIES OF SCIENCE IN THE PUBLIC UNDERSTANDING OF SCIENCE . . . . .	99
THE ROLE OF ACADEMIES OF SCIENCE IN THE FIELD OF SCIENTIFIC PUBLICATIONS . . . . .	111
ACADEMY CONFERENCE . . . . .	120
JUNIOR ACADEMY PROGRAM . . . . .	122
CONSTITUTION . . . . .	126
ACADEMY CONFERENCE FISCAL STATEMENT (1966) . . . . .	129

The photograph shown on the cover was provided by  
the Associate Administrative Secretary of the AAAS

## FOREWARD

State and city Academies of Science are becoming more aware of the important function they have to fulfill. Many science programs and most of the sources of funds for research are national in scope. Nevertheless, these programs must be adapted to the specific needs of different areas. The Academies of Science are in a position to shorten the feedback loop between national planning and local implementation. In a sense Academies are necessarily provincial, but only because ideas are ineffectual unless they are brought to bear upon specific situations.

The Academy Conference provides a forum for the discussion of problems encountered in these attempts at implementation. This Directory itself represents an attempt to share ideas and to provide names of potential resource persons.

Each Academy is encouraged to participate in the activities planned for the AAAS New York Meeting, 1967. Two discussions of considerable interest are planned for December 27:

### Relationships Between Academies of Science and AAAS Youth Science Activities

Selected high school students from the Academies will present their scientific papers at the American Junior Academy of Science on December 28. The Junior Scientists Assembly will be a special program of speakers and other activities for students in the New York area at the American Museum of Natural History on December 29.

The Officers of the Academy Conference would welcome your comments, questions, and suggestions about ways to strengthen education, research, and public understanding of science in our various communities.

V. Elving Anderson, President  
Academy Conference  
The Children's Hosp. Med. Cent.  
300 Longwood Avenue  
Boston, Massachusetts 02115  
% Dr. Park Gerald

## THE ACADEMY CONFERENCE

### Officers 1966

\*\*\*\*\*

President:	Dr. James A. Rutledge Dept. of Secondary Education University of Nebraska
President Elect:	Dr. V. Elving Anderson The Children's Hosp. Med. Center 300 Longwood Avenue Boston, Massachusetts 02115 % Dr. Park Gerald
Retiring President:	Dr. J. Karlem Riess Department of Physics Tulane University
Secretary-Treasurer:	Dr. Wilmer W. Tanner Department of Zoology Brigham Young University
Archivist:	Dr. Clinton L. Baker Department of Biology Southwestern at Memphis

### Officers 1967

\*\*\*\*\*

President:	Dr. V. Elving Anderson The Children's Hosp. Med. Center 300 Longwood Avenue Boston, Massachusetts 02115 % Dr. Park Gerald
President Elect:	Dr. John H. Melvin Ohio Academy of Science 505 King Avenue Columbus 1, Ohio
Retiring President:	Dr. James A. Rutledge Dept. of Secondary Education University of Nebraska
Secretary-Treasurer:	Dr. Wilmer W. Tanner Department of Zoology Brigham Young University
Archivist:	Dr. Clinton L. Baker Department of Biology Southwestern at Memphis

## AAAS ACADEMY CONFERENCE COMMITTEES FOR 1966

### I. Standing Committee on Collegiate Academies

Dr. Addison E. Lee, University of Texas  
Dr. Charles M. Vaughn, Miami University, Chairman  
Dr. T. Wayne Taylor, Michigan State University

### II. Standing Committee on Junior Academies

Dr. Wilmer W. Tanner, Brigham Young University  
Dr. Robert C. Fite, Oklahoma State University  
Dr. E. L. Wisman, Virginia Polytechnic Institute, Chairman

### III. Standing Program Committee

Dr. V. Elving Anderson, University of Minnesota  
Dr. James A. Rutledge, University of Nebraska  
Dr. Karlem Riess, Tulane University, Chairman

### IV. Nominating Committee

Dr. Clinton L. Baker, Southwestern at Memphis  
Dr. J. Teague Self, University of Oklahoma  
Dr. Karlem Riess, Tulane University, Chairman

### V. Committee on Junior Scientist Assembly

Keith C. Johnson, D. C. Public School, Chairman  
Philip W. Wirtz, Washington Junior Academy of Sciences  
John F. Williams III, Washington Junior Academy of Sciences

### VI. History Committee

Dr. E. Scott Barr, University of Alabama  
Dr. Clinton L. Baker, Southwestern at Memphis, Chairman  
Isabella Boggs, Professor Emeritus, Randolph-Macon Women's College

### VII. Committee on Distinguished Service Award

Dr. E. Ruffin Jones, University of Florida  
Dr. Patrick H. Yancey, Springhill College  
Dr. Clinton L. Baker, Southwestern at Memphis, Chairman

### VIII. Representative on Cooperative Committee

Dr. T. Wayne Taylor, Michigan State University

Presidential Address  
Academy Conference, AAAS  
Washington, D.C., December 27, 1966  
Dr. James A. Rutledge

## THE REQUISITES OF A STRONG ACADEMY

(A Distillation)

Amid the turmoil of self-criticism that we frequently level at ourselves (particularly vitriolic when we get together as a "family" at the Academy Conference) and the admissions of our shortcomings, it still comes through crystal-clear that the academies of science have unique potential for furthering the scientific enterprise. Whether an individual academy realizes that potential depends upon its strength.

What makes an academy "strong"? I examined the presidential addresses of the past four years and examined the speeches given at recent Academy Conference programs. I also examined the reports of Academy activities for some years past. The most chilling discovery was that precedent demands the presidential address deal with an analysis of academy concerns and activities, but that these able presidents, E. Ruffin Jones, Jr., Gerald G. Acker, J. Teague Self, and J. Karlem Riess had said virtually everything there was to say. The only thing left to do in 1966 seemed to be to go into the distilling business. Why not attempt to distill out the essence of what these men said so ably, season it a bit with the points that have been stressed in recent programs, add some basic ingredients from the reports of academies, and serve to you as a kind of summary of the composite "strong" academy? Here are the results of that endeavor.

## II

There appear to be some intangible requisites for the strong academy.

The academy is dedicated to excellence. It seeks constantly to improve every aspect of its program. It works hard to deserve the designation of a "first-rate scientific organization". Dedication to excellence also has tangible benefits. Membership grows and participation increases

since it is a human trait to wish to be allied with groups having reputations for excellence.

The academy is dynamic. It is ready to innovate. It is unwilling to "rest on its oars". Its objectives and purposes are clear-cut and understood by both leadership and membership. Leadership is also characterized by its stimulation of worthwhile activity on the part of the academy membership.

The academy develops individuality. The academy does not "jump on the bandwagon". It evaluates potential activities and contributions and chooses to concentrate its efforts on as few or as many of these as it feels it is equipped to support and carry out effectively.

### III

Some more tangible requisites for the strong academy seem to exist. Probably the most important consists of the people involved in the academy. The academy capitalizes on its personnel. For its leadership the academy utilizes the talents, dedication, and organizational abilities of a few key members. It fosters continuity in its leadership, but at the same time it seeks to infuse the leadership level with promising new blood. The academy structure and organization is such that a high percentage of the membership become involved in responsible activity in academy affairs.

### IV

The academy capitalizes on its unique interdisciplinary and inter-institutional base. The academy is one of the few, if not the only, local or regional scientific body embracing all the scientific disciplines. The academy also represents one of the very few joint efforts in which staff members from the several institutions in the area and industrial scientists actively collaborate. There is also the opportunity for the participation of the social scientists. This heterogeneous representation makes possible an approach, impossible within a single discipline or a single institution to problems, issues and matters of general scientific concern.

### V

The academy conducts meetings at which scholarly scientific reports, reviews, and research papers are presented. Frequently presented

in special program sections in chemistry, engineering, etc., these papers may be volunteer or invited. Such presentations provide the backbone of activity for many academies.

## VI

The academy provides programs to stimulate science interest among neophyte scientists. These programs frequently take the shape of junior academy presentations of papers or exhibits, science fair sponsorship, science congresses, Saturday or holiday lectures designed for the secondary school science student. The academy may sponsor the activities of collegiate members through participation in regular sessions of the academy, special collegiate academy sections, special lectures for undergraduates and other efforts of a similar nature.

## VII

The academy has an active publication program. Through such media as proceedings, periodical publications, abstracts, occasional books, and brochures the academy seeks to provide communication among scientists and between scientists and the lay public. Some publications provide a means of publication for neophyte scientists of the junior academy or the collegiate academy. These publications fill a need for regional and sometimes parochial types of publications which have a place in scientific literature. These publications provide opportunities for the publication of symposia, reports, summaries and reviews as well as original research. Collaboration with other scientific organizations in developing and distributing publications may also serve a function.

## VIII

The academy provides consultative services to governmental agencies and community groups. Services may be provided upon request by a corps of scientists volunteering through the academy which because of its interdisciplinary and interinstitutional nature can provide the best consultative services available within a region.

## IX

The academy seeks to improve school and college science education. The academy works with boards of education, school personnel, accrediting

agencies and other interested groups to upgrade the curriculum and teaching of science in elementary and secondary schools. The academy assists in any way desired in the upgrading and improvement of college sciences. Special lectures, liaison with national groups such as CUEBS, are examples in this area.

#### X

The academy engages in the interpretation of science for the lay public. Through special lectures open to the public, or to organized groups, through publications aimed at the general reader, through work with information media, and through the maintenance and support of museums, public exhibits, and libraries, this function may be carried out.

#### XI

The academy participates in the political and social concerns of the day. Through the joint voice of scientists organized as an academy their views and judgment can gain a wider hearing. Political and social action should be based on the most expert opinion and judgment available. The academy has a duty to provide this opinion and judgment on matters involving scientific explanation or interpretation. An example of such a matter is the question of fluoridation.

#### XII

The academy operates under a sound fiscal plan. The academy seeks its own financial support, approaching industry, foundations, philanthropists, and legislatures as well as its own membership in securing financial support for its activities. Budgetary practices are followed with care.

#### XIII

The academy participates effectively through its representatives in national organizations, such as the Academy Conference. Consistent representation and participation assist in carrying out the purposes of national organizations. They are imperative if the Academy Conference functions of promoting the common aims and purposes of academies through mutual cooperation, and providing appropriate means for consultation on and investigation of the problems of academies.

## ALABAMA ACADEMY OF SCIENCE

1966

President: David L. DeJarnette, Box 277, Moundville 35474  
President Elect: Dr. H. Ellsworth Steele, 212 Tichenor Hall, Auburn University,  
Auburn 36830  
Secretary: W. B. DeVall, Dept. of Forestry, Auburn University, Auburn 36830  
Treasurer: Dr. John M. McKibbin, University of Alabama Medical Center, 1919  
7th Avenue South, Birmingham 35233  
Editor of Journal: Dr. Robert T. Gudauskas, Botany and Plant Pathology,  
Auburn University, Auburn 36830  
Councilor of the AAAS: Patrick H. Yancey, S. J., Spring Hill College, Mobile  
Permanent Counselor of Junior Academy: G. O. Spencer, Troy State College,  
Troy 36081  
Associate Counselors for Junior Academy: Reuben Boozer, Auburn University,  
Auburn 36830 and Joseph C. Thomas, Florence State College,  
Florence 35630

1967

President: Dr. H. Ellsworth, 212 Tichenor Hall, Auburn University, Auburn  
36830  
President Elect: Dr. R. E. Wheeler, Samford University, Birmingham 35209  
Secretary: Same as above  
Treasurer: Same as above  
Editor of Journal: Same as above  
Council of the AAAS: Same as above  
Permanent Counselor of Junior Academy: Same as above  
Associate Counselors for Junior Academy: Dr. Joseph C. Thomas, Florence  
State College, Florence 35630 and Dr. A. F. Hemphill, Spring Hill  
College, Mobile 36608

AAAS REPRESENTATIVE: Rev. Patrick H. Yancey, S. J., Spring Hill College,  
Mobile 36608

SECOND DELEGATE TO THE ACADEMY CONFERENCE: None

SPONSOR OF JUNIOR ACADEMY: Prof. G. O. Spencer, Troy State College,  
Troy 36081

SPONSOR OF COLLEGIATE ACADEMY: None

SECTIONS OF ACADEMY: Biological Sciences; Chemistry; Geology; Forestry;  
Geography and Conservation; Physics and Mathematics; Industry  
and Economics; Science Education; Social Sciences; Medical  
Sciences; Engineering; Anthropology

MEMBERSHIP: 981 as of March 31, 1967

ANNUAL MEETINGS: April 5-6, 1968 at Samford University, Birmingham

PUBLICATIONS: Journal and Newsletter

## ALABAMA ACADEMY OF SCIENCE (continued)

NAME AND ADDRESS OF INDIVIDUAL WHO SHOULD BE CONTACTED FOR A  
REPORT ON ACADEMY ACTIVITIES: No Permanent Secretary

### ACTIVITIES

The Academy is the sponsor of the Alabama Junior Academy of Science and the Alabama Science Fairs.

A NSF grant has been used to finance visiting scientists to schools in the Alabama system. Financial awards and certificates are presented to winners of the best paper presented in the undergraduate and graduate divisions at the annual meeting of the Academy. An award is presented each year to an outstanding high school teacher. Grants are available each year, on application, to Academy members for research purposes. Field trips, tours, and symposia are scheduled in connection with the annual meeting of the Academy. Since these meetings are held in various places over the state it is possible to develop special programs on or give special emphasis to the local area.

## ARIZONA ACADEMY OF SCIENCE

1966

President: Dr. Russell A. Nidey, Kitt Peak National Observatory, P. O.  
Box 4130, Tucson 85717  
President Elect: Dr. Chester R. Leathers, Department of Botany, Arizona  
State University, Tempe 85281  
Past President: Dr. Arthur A. Hoag, Kitt Peak National Observatory, P. O.  
Box 4130, Tucson 85717  
Corresponding Secretary: Dr. Kenneth E. Bean, Faculty Box 4058, Northern  
Arizona University, Flagstaff 86001  
Membership Secretary: Mr. Norbert J. Konzal, 2042 W. Thomas Road, Phoenix  
85015  
Treasurer: Dr. Thomas W. Barrett, Department of Agriculture, Arizona State  
University, Tempe 85281  
Councillors:  
Southern Arizona Section: Miss Vorsila L. Bohrer, 2142 East Hawthorne  
Street, Tucson  
Central Arizona Section: Dr. Ellsworth A. Edling, 7148 North 25th  
Drive, Phoenix  
Northern Arizona Section: Mr. Martin A. Link, Navajo Tribal Museum,  
Window Rock  
Appointed Officers:  
Editor: Dr. Robert M. Harris, Department of Botany, University of  
Arizona, Tucson  
Director, Traveling Science Institute: Dr. Roy M. Johnson, Arizona  
Academy of Science, Room D-203, Physical Science Center,  
Arizona State University, Tempe 85281  
Director, Junior Academy: Mr. David T. Smith, Tucson Public Schools,  
Education Center, P. O. Box 4040, Tucson  
Historian: Dr. George T. Renner, Department of Geography, Arizona  
State University, Tempe 85281

1967

President: Dr. Chester R. Leathers, Department of Botany, Arizona State  
University, Tempe 85281  
President Elect: Dr. James R. Wick, Chairman, Department of Biological  
Sciences, Northern Arizona University, Flagstaff 86001  
Past President: Dr. Russell A. Nidey, Kitt Peak National Observatory,  
P. O. Box 4130, Tucson 85717  
Corresponding Secretary: Dr. Kenneth E. Bean, Faculty Box 4058, Northern  
Arizona University, Flagstaff 86001  
Membership Secretary: Mr. Howard Voss, Physics Department, Arizona State  
University, Tempe 85281  
Treasurer: Dr. Thomas W. Barrett, Department of Agriculture, Arizona  
State University, Tempe 85281  
Councillors:  
Southern Arizona Section: Dr. M. R. Bottaccini, Aerospace Engineering  
Department, University of Arizona, Tucson 85721

## ARIZONA ACADEMY OF SCIENCE OFFICERS (continued)

Central Arizona Section: Dr. Ellsworth A. Edling, 7148 North 25th Drive, Phoenix

Northern Arizona Section: Mr. Martin A. Link, Navajo Tribal Museum, Window Rock

### Appointed Officers:

Editor: Dr. Robert M. Harris, Department of Botany, University of Arizona, Tucson 85721

Director, Traveling Science Institute: Dr. Roy M. Johnson, Arizona Academy of Science Room D-203, Physical Science Center, Arizona State University, Tempe 85281

Director, Junior Academy: Mr. David T. Smith, Tucson Public Schools, Education Center, P. O. Box 4040, Tucson 85721

Historian: Dr. George T. Renner, Arizona Academy of Science Room D-203, Physical Science Center, Arizona State University, Tempe 85281

AAAS REPRESENTATIVE: (1966) Dr. Edwin B. Kurtz, AAAS, 1515 Massachusetts Avenue, N. W., Washington, D. C. 20005. (1967 representative has not yet been named).

SECOND DELEGATE TO ACADEMY CONFERENCE: (1966) Mr. David T. Smith, Tucson Public Schools Education Center, P. O. Box 4040, Tucson. (1967 Delegate has not yet been named).

SPONSOR OF JUNIOR ACADEMY: Mr. David T. Smith, Tucson Public Schools Education Center, P. O. Box 4040, Tucson 85721

SPONSOR OF COLLEGIATE ACADEMY: None

SECTIONS OF ACADEMY: Anthropology; Astronomy; Biology; Chemistry; Geography; Geology; Physics; Radiation; Science Education.

MEMBERSHIP: Honorary Members, 4; Life members, 10; Sustaining members, 12; Regular members, 591; Student members, 3; TOTAL, 647.

ANNUAL MEETINGS: 1966 - April 2nd, Arizona State University, Tempe; 1967 - (in conjunction with AAAS Southwestern and Rocky Mountain Division) April 29th, Ramada Inn, Tucson.

PUBLICATIONS: Journal of the Arizona Academy of Science; Newsletter of the Arizona Academy of Science.

NAME AND ADDRESS OF INDIVIDUAL WHO SHOULD BE CONTACTED FOR A REPORT ON ACADEMY ACTIVITIES: Dr. Kenneth E. Bean, Faculty Box 4058, Northern Arizona University, Flagstaff 86001. The Academy now has a permanent office: Room D-203, Physical Science Center, Arizona State University, Tempe 85281.

## ARIZONA ACADEMY OF SCIENCE (continued)

### ACTIVITIES

Junior Academy of Science, David T. Smith, Director, Annual Meeting, April 2, 1966. 110 present; 53 technical papers read. 13 Science clubs and 44 individual students are members.

Visiting Scientist Program, Dr. Roy M. Johnson Director. During 1965-66, 178 programs were presented to 65 high schools.

Research Grants-in-Aid. During 1966, \$815 was awarded to high school students and \$990 to members of the Academy in support of research projects.

Scholarships. The Academy annually awards two scholarships for \$200 per year good for four years to high school seniors planning to attend Arizona colleges or universities.

Awards. The Academy recognizes outstanding high school science teachers with small monetary awards, and outstanding high school students in the Science Talent Search.

Annual Meeting. Held April 2, 1966, at Arizona State University, Tempe. Highlights included the Annual Arizona Academy of Science Address by Dr. Stanley Bashkin, University of Arizona, "A New Approach to Atomic Spectroscopy" and the Presidential Address by Dr. Arthur A. Hoag, Kitt Peak National Observatory, "Faster than Light." Sixty-six technical papers were also read.

## ARKANSAS ACADEMY OF SCIENCE

1966

President: Howard Moore, Division of Physical Science, Arkansas State University, State College  
President Elect: John Chapman, Dept. of Geology, Southern State College, Magnolia  
Secretary: George Templeton, Dept. Plant Pathology, University of Arkansas, Fayetteville  
Treasurer: John P. Jones, Dept. of Plant Pathology, University of Arkansas, Fayetteville  
Editor: James L. Dale, Dept. of Plant Pathology, University of Arkansas, Fayetteville

1967

President: John Chapman, Dept. Geology, Southern State College, Magnolia  
President Elect: Arthur Fry, Dept. Chemistry, University of Arkansas, Fayetteville  
Secretary: Same as above  
Treasurer: Same as above  
Editor: Lester Howick, Dept. Chemistry, University of Arkansas, Fayetteville

AAAS REPRESENTATIVE: Dr. P. M. Johnston, Dept. Zoology, University of Arkansas, Fayetteville

SECOND DELEGATE TO THE ACADEMY CONFERENCE: None

SPONSOR OF JUNIOR ACADEMY: Mrs. Houston Taylor Jr., Fayetteville High School, Fayetteville

SPONSOR OF COLLEGIATE ACADEMY: Wilbur Everett, Chemistry Department, Ouachita Baptist University, Arkadelphia and Dr. Paul Raines, University of Arkansas, Fayetteville

SECTIONS OF ACADEMY: Biology and Agriculture, Chemistry, Geology, History and Political Science, Mathematics, Physics, Science Education

MEMBERSHIP: 300

ANNUAL MEETINGS: One per year. Recently on April 7 and 8 at Arkansas State University in Jonesboro. Next at Ouachita Baptist University

PUBLICATIONS: Proceedings of the Arkansas Academy of Science (Annual)

NAME AND ADDRESS OF INDIVIDUAL WHO SHOULD BE CONTACTED FOR A REPORT ON ACADEMY ACTIVITIES: Dr. George Templeton, Secretary (See above)

## ARKANSAS ACADEMY OF SCIENCE (continued)

### ACTIVITIES

The Academy sponsors a Junior and Collegiate Academy and also a Science Fair. The meetings of these groups are in the spring at the same time as the Senior Academy. A visiting Scientist Program is sponsored and is directed by the Secretary, Dr. George Templeton. This will be financed by the Valley Education and Research Foundation this coming year.

The only grant-in-aid is the AAAS research award. The academy also sponsors a Junior Science and Humanities Symposium. This is financed by the U. S. Army Office of Research and Private Industry.

The annual meeting was held on April 7 and 8 at Arkansas State University in Jonesboro, Arkansas. Dr. Harry G. Day from Indiana University gave a lecture on Nutritional Biochemistry. Also present were representatives from CUEBS, AC<sup>3</sup>, and CUPM. They presented papers in their respective section meetings. Affiliated organizations meeting at this time include: Junior Academy, Arkansas State Science Fair, Westinghouse Science Talent Search Program, Collegiate Academy, and the Arkansas Science Teachers Associations.

## CALIFORNIA ACADEMY OF SCIENCES

October 1965 - October 1966

President: Dr. A. Starker Leopold, California Academy of Science, San Francisco, California 94118 (All officers use the Academy address)  
Vice President: Dr. J. Wyatt Durham  
Secretary: Dr. Siemon W. Muller  
Treasurer: Mr. E. Morris Cox  
Chairman of the Board of Trustees: Mr. Alan J. Galloway  
Vice Chairman: Mr. Brooks Walker and Mr. I. W. Hellman

October 1966 - October 1967

President: Dr. J. Wyatt Durham  
Vice President: Dr. Ralph Emerson  
Secretary: Dr. Siemon W. Muller  
Treasurer: Mr. E. Morris Cox  
Chairman of the Board of Trustees: Mr. Alan J. Galloway  
Vice Chairman: Mr. Brooks Walker and Mr. I. W. Hellman

AAAS REPRESENTATIVE: Dr. Robert C. Miller, Senior Scientist (Academy address)

SECOND DELEGATE TO ACADEMY CONFERENCE: None

SPONSOR OF COLLEGIATE ACADEMY: No Collegiate Academy

SPONSOR OF JUNIOR ACADEMY: Mr. Kenneth Lucas, Supervisor, California Junior Academy of Science (Academy address)

SECTIONS OF ACADEMY: Science Museum; Geology Department; Alexander F. Morrison Planetarium; Herpetology Department; Steinhart Aquarium; Ichthyology Department; J. W. Mailliard, Jr. Library; Invertebrate Zoology Department; Botany Department; Ornithology and Mammalogy Department; Entomology Department

MEMBERSHIP: Regular membership - 2,032; Family - 878; Contributing - 165; Subscribing - 10; Annual Sponsor - 18; Associate - 14; Student - 297; Spec. Observers - 2; Life - 237; Patron - 66; Fellows - 216; Benefactors - 3; Honorary - 20; Corresponding - 4. Total (All classes) - 3,962

ANNUAL MEETINGS: October 5, 1966, October 4, 1967

PUBLICATIONS: Newsletter, Occasional Papers, Proceedings, Memoirs, Magazine "Pacific Discovery," Popular Guides

NAME AND ADDRESS OF INDIVIDUAL WHO SHOULD BE CONTACTED FOR A REPORT ON ACADEMY ACTIVITIES: Dr. George E. Lindsay, Director (Academy address)

## CALIFORNIA ACADEMY OF SCIENCES (continued)

### ACTIVITIES

The California Academy of Sciences operates an aquarium, planetarium and science museum complex which was visited by 3,000,000 people in 1966. It produced a television program, "Science in Action," which was televised from about twenty stations in the United States, as well as Asia, Africa, and Europe.

The thirteenth San Francisco Bay Area Science Fair was open to the public March 26-30, and was viewed by 53,679.

The Annual Meeting and Open House was held October 5, 1966, with an attendance of 1,200.

The Annual Fellows Banquet was held November 2, and was addressed by Dr. William Pickering. The Fellows Silver Medal was awarded to Dr. Carl L. Hubbs, Research Associate in Ichthyology, for his contributions to systematic biology and oceanography.

Field work: Curator of Entomology, Dr. Edward S. Ross and party collected in West and South Africa for six months, June 1966-January 1967. The Gulf Islands Expedition, in cooperation with the San Diego Natural History Museum, explored the Gulf of California April 19-29, 1966. Dr. Earl S. Herald spent a month in India investigating fresh water dolphins. Director George E. Lindsay and party were in Kenya and Tanzania in August and September, 1966. Mr. Luis Baptista, with the aid of an AAAS - Academy grant, investigated the birds of southern Mexico during July, August and September. There were several other field trips, particularly by the Junior Academy during 1966. The California Junior Academy of Sciences, under the supervision of Kenneth Lucas and Darrel McKenzie, Instructor, conducted summer classes in science for more than 200 students. After school, vacation, and Saturday classes and field trips were carried on through the year.

Public Lectures: Twelve monthly meetings were held for the Academy membership, with an average attendance of 520. Other organizations using the Academy auditorium for regular and special meetings are the San Francisco Aquarium Society, which also had its annual aquarium show here; the Pacific Coast Entomological Society; San Francisco Horticultural Society; the San Francisco Zoological Society; the San Francisco Astronomical Society, etc.

The planetarium gave special educational shows for students in class groups for 47,714. Total attendance at the planetarium was 188,266.

A special in-training course for San Francisco Science Teachers was attended by 140 teachers. There were twelve sessions.

## CHICAGO ACADEMY OF SCIENCES

1966

President: Dr. Leslie Brainerd Arey, Northwestern University School of Medicine, 303 East Chicago Avenue, Chicago 60611  
Vice President: Frederick W. Preston, M. D. Veterans Administration Hospital, 333 East Huron Street, Chicago 60611  
Director: Dr. William J. Beecher, Chicago Academy of Sciences, 2001 North Clark Street, Chicago 60614

1967

(Not available)

AAAS REPRESENTATIVE: Dr. William J. Beecher, Director-Chicago Academy of Sciences, 2001 North Clark Street, Chicago 60614

SECOND DELEGATE TO ACADEMY CONFERENCE: None

SPONSOR OF JUNIOR ACADEMY: None

SPONSOR OF COLLEGIATE ACADEMY: None

MEMBERSHIP:

ANNUAL MEETINGS: Meeting to be held April 28, 1967.

PUBLICATIONS: Scientific Papers - Natural History Miscellanea; Scientific Bulletins; Special Publications; Science Notes; Museum Activities; Lecture Schedules; Saturday Movies for Children, Sunday Travelogues

NAME AND ADDRESS OF INDIVIDUAL WHO SHOULD BE CONTACTED FOR A REPORT ON ACADEMY ACTIVITIES: Dr. Lawrence H. Nobles, Department of Geology, Northwestern University, Evanston

### ACTIVITIES

Annual Meeting; Junior Academy; Visiting Scientists; Chicago Archaeological Society; Chicago Cinema Club; Optical Society of Chicago; Society of Photographic Engineers and State Microscopical Society of Illinois. Sunday Lectures and Saturday Science Movies. Educational Lectures and Field Trips. Junior Curator program; Work Study Program; Herpetology Club; Guided Educational Tours - School Program. Circle on Cybernetics and Neurophysiology; International Society of Steroscopy; Chicago Academy Women's Board; Classes in "How to Use the Microscope."

## FLORIDA ACADEMY OF SCIENCES

1966

President: Dr. Margaret L. Gilbert, Biology Department, Florida Southern College, Lakeland 33802

President Elect: Dr. Jackson P. Sickels, 541 San Esteban Avenue, Coral Gables 33146

Secretary: Dr. John D. Kilby, Zoology Department, University of Florida, Gainesville 32601

Treasurer: Dr. James B. Fleek, Box 36, Jacksonville University, Jacksonville 32211

(The terms of office of the above named officers run from March, 1966 to March 1967)

1967

President: Dr. Jackson P. Sickels, 541 San Esteban Avenue, Coral Gables 33146

President Elect: Dr. Clarence C. Clark, University of South Florida, Tampa 33620

Secretary: Dr. John D. McCrone, Zoology Department, University of Florida, Gainesville 32601

Treasurer: Dr. James B. Fleek, Box 36, Jacksonville University, Jacksonville 32211

(The terms of office of the above named officers run from March, 1966 to March 1967.)

AAAS REPRESENTATIVE: Dr. Lauren Gilman, Biology Department, University of Miami, Coral Gables 33142

SECOND DELEGATE TO ACADEMY CONFERENCE: Our Academy Conference representative is Dr. Lauren Gilman, address given above.

SPONSOR OF JUNIOR ACADEMY: Our State Coordinator of the Junior Academy is Mrs. Louise V. Ash, 2405 N. W. 18 Place, Gainesville

SPONSOR OF COLLEGIATE ACADEMY: None

SECTIONS OF ACADEMY: Biological Sciences, Medical Sciences, Physical Sciences, Conservation, Science Teaching, Social Sciences.

MEMBERSHIP: 432

ANNUAL MEETINGS: Our annual meeting, usually early in March (March 9-11 1967)

PUBLICATIONS: Quarterly Journal of the Florida Academy of Sciences: contains papers. FAS Newssheet: mimeographed, about 4 per year.

## FLORIDA ACADEMY OF SCIENCES (continued)

NAME AND ADDRESS OF INDIVIDUAL WHO SHOULD BE CONTACTED FOR A REPORT ON ACADEMY ACTIVITIES: Our secretary is elected at each annual meeting, but we try to retain the same secretary for several terms.

### ACTIVITIES

Junior Academy: Holds annual meeting same time and city as Senior Academy's.  
Visiting Scientist Program: Will be curtailed this year because of loss of NSF grant. Past year - 170 visits.

AAAS Research Grants.

Publish Quarterly Journal containing refereed research papers.

Annual Meeting: Symposia and research papers; this is our principal activity in terms of participation by members. There were 201 registered at our 1967 meeting. Papers presented - 78; Educational films on physics teaching - 2; Special Program - Panel Discussion "Our Florida Beaches, Their Uses, Development and Preservation." This annual meeting was held jointly with the Florida Chapters of the American Fisheries Society and the American Association of Physics Teachers.

## GEORGIA ACADEMY OF SCIENCE

1966

President: Dr. Howard D. Edwards, School of Aerospace Engineering, Georgia  
Institute of Technology, Atlanta 30313  
President Elect: Dr. Stephen W. Gray, Anatomy Department, Emory University,  
Atlanta 30322  
Secretary: Dr. Jack T. May, School of Forestry, University of Georgia,  
Athens 30601  
Treasurer: Dr. Howard Cramer, Geology Department, Emory University, Atlanta

1967

President: Dr. Stephen W. Gray, Anatomy Department, Emory University,  
Atlanta 30322  
President Elect: Will be elected April 28  
Secretary: Dr. Jack T. May, School of Forestry, University of Georgia,  
Athens 30601  
Treasurer: Dr. Howard Cramer, Geology Department, Emory University, Atlanta  
AAAS REPRESENTATIVE: Dr. Jack T. May, School of Forestry, University of  
Georgia, Athens 30601

SECOND DELEGATE TO THE ACADEMY CONFERENCE: Dr. Stephen W. Gray,  
Anatomy Department, Emory University, Atlanta 30322

SPONSOR OF JUNIOR ACADEMY: Mr. Lonnie A. Love, Science Department,  
Marietta High School, Marietta

SPONSOR OF COLLEGIATE ACADEMY: None

SECTIONS OF ACADEMY: Biological Sciences; Chemistry; Geology, Geography  
and related fields; Physics, Mathematics, Engineering and related  
fields; Medicine and Psychology; Philosophy and History of Sciences;  
Science Education

MEMBERSHIP: 609

ANNUAL MEETINGS: Fourth Friday in April

PUBLICATIONS: Bulletin of the Georgia Academy of Science

NAME AND ADDRESS OF INDIVIDUAL WHO SHOULD BE CONTACTED FOR A  
REPORT ON ACADEMY ACTIVITIES: No permanent Secretary

### ACTIVITIES

1. Junior Academy of Science
2. State Science Fair
3. Talent Search
4. Grants for research projects for State Science Fair
5. Student Awards for Outstanding Papers at Annual Meetings

## HAWAIIAN ACADEMY OF SCIENCE

1966 and 1967

President: John C. Marr, U. S. Bureau of Commercial Fisheries, P. O. Box 3830, Honolulu 96812  
President Elect: Dr. Saul Price, Environment Science Service, U. S. Weather Bureau, P. O. Box 3650, Honolulu 96811  
Secretary: Dr. Ira Lichten, Dept. of Nutrition, University of Hawaii, Honolulu 96822  
Treasurer: Mrs. Eleanor Anderson, Bishop Museum, Honolulu, 96819  
Councillors: Dr. George Felton, Dole Company, 650 Iwilei Rd. Honolulu 96817  
Dr. Shosuke Goto, College of Tropical Agriculture, University of Hawaii, Honolulu 96822  
Dr. John Magnuson, U. S. Bureau of Commercial Fisheries, P. O. Box 3830, Honolulu 96812  
Dr. J. B. Smith, Pineapple Research Institute, 2500 Dole St. Honolulu 96822

AAAS REPRESENTATIVE: Dr. Jimmie Bob Smith, Pineapple Research Institute, 2500 Dole Street, Honolulu 96822

SECOND DELEGATE TO ACADEMY CONFERENCE: None

SPONSOR OF JUNIOR ACADEMY: None

SPONSOR OF COLLEGIATE ACADEMY: None

SECTIONS OF ACADEMY: Hawaii Section

MEMBERSHIP: 1295

ANNUAL MEETINGS: Held in May or June each year

PUBLICATIONS: Proceedings of the Hawaiian Academy of Science

NAME AND ADDRESS OF INDIVIDUAL WHO SHOULD BE CONTACTED FOR A REPORT ON ACADEMY ACTIVITIES: Dr. Ira Lichten, Department of Nutrition, University of Hawaii, Honolulu 96822

### ACTIVITIES

Through the Organization called Inter Society Science Education Council (ISSEC) we sponsor Science Fairs, Student Seminars, Teacher Seminars, Visiting Scientists, Junior and Senior Science Camps and Science Talent Search.

SCIENCE FAIR: The Ninth Annual Hawaiian Science Fair was held March 11-13 1966, at the Hilton Dome. Ninety-two exhibits were selected for judging at the Fair, twenty-nine of which were in the senior division.

## HAWAIIAN ACADEMY OF SCIENCE ACTIVITIES (continued)

**VISITING SCIENTISTS PROGRAM:** This program evolved from a lecture series for teachers on Oahu begun in 1957 and extended to the neighbor islands in about 1960. Funded independently by the National Science Foundation through the Academy for the last several years, it continued in 1965-66 to offer 119 presentations with 43 participating scientists.

**STUDENT SCIENCE SEMINARS:** Started under ISSEC auspices by Dr. Carr in 1959, this program is now also funded through the Academy with a grant from NSF. Thirty specially selected high school students formed four seminar groups, one each on Oahu, Kauai, Maui, and Hawaii. Twenty-five sessions were held on Oahu, about sixteen each on the other islands. The seminars afford these students the opportunity of additional science instruction together with interchange with professional scientists.

**SCIENCE CLUBS SERVICES:** Since their inception some years ago ISSEC has worked closely with high school science clubs. The association arranges student workshops and field trips, as well as publishing the bi-monthly Ke Akeakamai.

**SCIENCE CLUBS CAMPS:** For several years science club members have encamped for a weekend of science instruction and field work, which has also provided an opportunity for exchange between clubs.

**SCIENCE TEACHER WORKSHOP:** This workshop was first held in conjunction with the Third Annual Fair in 1960 and continued, with varied programming, each year. This year the invited teachers met at Punahou School on Saturday, March 12. Various scientists were asked to speak and the reception was reported as good.

**SCIENCE TALENT SEARCH:** In continuance of previous practice, students were selected to participate in the nationwide Westinghouse talent search. Four were given honors at the State level. In addition to the above activities, two teachers were recognized by small monetary awards by ISSEC at the annual Academy meeting in May.

## IDAHO ACADEMY OF SCIENCE

1966

President: Mr. Boyd Henry, Mathematics Dept., College of Idaho, Caldwell  
Vice President: Mr. Gordon A. Dixon, Physical Sciences, Ricks College,  
Rexburg  
Secretary: Dr. M. Jerome Bigelow, Chemistry Dept., Idaho State University  
Pocatello  
Treasurer: Dr. Lorentz Pearson, Biological Sciences, Ricks College, Rexburg

1967

Officers Not Available

AAAS REPRESENTATIVE: Dr. Earl J. Larrison, Biological Science Dept.,  
University of Idaho, Moscow

SECOND DELEGATE TO THE ACADEMY CONFERENCE: None

SPONSOR OF JUNIOR ACADEMY: None

SPONSOR OF COLLEGIATE ACADEMY: None

SECTIONS OF ACADEMY: For purposes of the annual meeting: Botany, Zoology,  
Physical Sciences, Mathematics, and Science Education

MEMBERSHIP: 300

ANNUAL MEETINGS: May 5-6, 1967

PUBLICATIONS: Journal of the Academy

NAME AND ADDRESS OF INDIVIDUAL WHO SHOULD BE CONTACTED FOR A  
REPORT ON ACADEMY ACTIVITIES: No Permanent Secretary

### ACTIVITIES

In 1965-1966, the Academy once again sponsored the Visiting Scientist Program, with 57 scientists making 125 visits to 77 high schools.

A Chem Study and PSSC In-Service Institute was sponsored for high school teachers at five centers: Rexburg, Pocatello, Buhl, Caldwell, and Moscow. Approximately 80 high school teachers were involved. The Institute was coordinated by Merle Fisher of Ricks College.

An entire issue of the Journal was devoted to the birds of Idaho.

## ILLINOIS STATE ACADEMY OF SCIENCE

1966

President: Norman D. Levine, University of Illinois, Urbana  
1st Vice President: Milton D. Thompson, Illinois State Museum, Springfield  
2nd Vice President: William Cloud, Eastern Illinois University, Charleston  
Secretary: Anthony E. Liberta, Illinois State University, Normal  
Treasurer: William C. Ashby, Southern Illinois University, Carbondale  
Librarian: Milton D. Thompson, Illinois State Museum, Springfield  
President, Junior Academy: James R. Keith, Carl Sandburg High School,  
Orland Park  
Past President: G. R. Yohe, Illinois State Geological Survey, Urbana  
Elected Councilors:  
1967: Robert C. Wallace, University High School, Urbana  
1968: Walter B. Welch, Southern Illinois University, Carbondale  
1970: Donald F. Hoffmeister, Museum of Natural History,  
University of Illinois, Urbana

1967

(Officers not available)

AAAS REPRESENTATIVE: William C. Ashby, Southern Illinois University,  
Carbondale

SECOND DELEGATE TO ACADEMY CONFERENCE: Kenneth Harmet, Northern  
Illinois University, DeKalb

SPONSOR OF JUNIOR ACADEMY: James R. Keith, Carl Sandburg High School,  
Orland Park

SPONSOR OF COLLEGIATE ACADEMY: None

SECTIONS OF ACADEMY: Anthropology, Aquatic Biology, Botany, Chemistry,  
Conservation, Geography, Geology, Meteorology and Climatology,  
Microbiology, Physics, Science Teaching, Zoology

MEMBERSHIP: 900

ANNUAL MEETINGS: 60th Annual Meeting - Eastern Illinois University,  
Charleston, April 27-29, 1967.

PUBLICATIONS: Transactions of the Illinois State Academy of Science  
Four issues per year; one volume. Volume 60 in 1967.

NAME AND ADDRESS OF INDIVIDUAL WHO SHOULD BE CONTACTED FOR A  
REPORT ON ACADEMY ACTIVITIES: No Permanent Secretary

### ACTIVITIES

The Illinois State Academy of Science sponsors the Illinois Junior Academy  
of Science, which holds 11 District Science Expositions and the State

## ILLINOIS STATE ACADEMY OF SCIENCE ACTIVITIES (continued)

Exposition each year. Papers Sessions and essay contests are held in conjunction with the State Exposition; National and State winners in the Westinghouse Science Talent competition are awarded their certificates at the State Exposition.

The Academy conducts a Visiting Scientist program, with financial support of the National Science Foundation, wherein science specialists visit High Schools in the state for lectures and consultations.

Usually one or two field trips are held in conjunction with the Annual Meeting of the Academy in April. Botany and Geology are the sciences usually involved. In 1967, only a Botany trip is to be made.

The Academy holds an Annual Public Lecture on Friday evening during the Annual Meeting.

Modest Research Grants are awarded annually by the Academy upon recommendation of our Research Grants Committee, which reviews the applications.

## INDIANA ACADEMY OF SCIENCE

1966 - 1967

President: Carrolle A. Markle, Earlham College, Richmond 47375  
President Elect: Alton A. Lindsey, Dept. of Biological Sciences, Purdue University, Lafayette 57907  
Secretary: Clarence F. Dineen, St. Mary's College, Notre Dame 46556  
Treasurer: Frank A. Guthrie, Rose Polytechnic Institute 5500 Wabash Avenue, Terre Haute 47803  
Editor: William R. Eberly, Manchester College North Manchester 46962  
Director of Public Relations: James A. Clark, Dept. of Natural Resources, 613 State Office Building, Indianapolis 46209  
Chairman Program Committee, Warren E. Hoffman, Indiana Institute of Technology 1600 East Washington Boulevard, Fort Wayne 46803

1967 - 1968

President: Alton A. Lindsey, Dept. of Biological Sciences, Purdue University Lafayette 47907  
President Elect: William J. Wayne, Indiana Geological Survey, Indiana University, Bloomington 47405  
Secretary: James R. Gammon, Dept. of Zoology, DePauw University, Greencastle  
Treasurer: Frank A. Guthrie, Dept. of Chemistry, Rose Polytechnic Institute, Terre Haute 47803  
Editor: William R. Eberly, Manchester College, N. Manchester 46962  
Director of Public Relations: James A. Clark, (Same as above)  
Chairman Program Committee: Harry G. Day, Dept. of Chemistry, Indiana University, Bloomington 47405

AAAS REPRESENTATIVE: Dr. Willis Johnson, Dept. of Biology, Wabash College, Crawfordsville

SECOND DELEGATE TO ACADEMY CONFERENCE: Dr. Alton A. Lindsey, Dept. of Biological Sciences, Purdue University, Lafayette 47907

SPONSOR OF JUNIOR ACADEMY: Professor Donald Winslow, University High School, Bloomington 47405

SPONSOR OF COLLEGIATE ACADEMY: None

DIRECTOR OF INDIANA SCIENCE TALENT SEARCH: Prof. Virgil Heniser, 121 Jordan Hall, Indiana University, Bloomington 47405

STATE DIRECTOR OF INDIANA SCIENCE FAIRS: Dr. Karl L. Kaufman, College of Pharmacy, Butler University, Indianapolis

SECTIONS OF ACADEMY: Anthropology, Bacteriology, Botany, Chemistry, Ecology, Entomology, Geology and Geography, History of Science, Physics, Psychology, Soil Science, Plant Taxonomy, and Zoology

MEMBERSHIP: August 1, 1966: 1050

## INDIANA ACADEMY OF SCIENCE (continued)

**ANNUAL MEETINGS:** Spring Meeting, Indiana Sesquicentennial Symposium on Natural Features of Indiana, Wabash College, Crawfordsville, Indiana, April 22-23, 1966. Eighty-second annual meeting, Indiana Institute of Technology, Fort Wayne, Indiana, October 21-22, 1966.

**PUBLICATIONS:** Proceedings of the Indiana Academy of Science for 1965, Volume 75, Hardbound, 336 pp. Indiana State Library. Natural Features of Indiana, Indiana Sesquicentennial Volume, (Hardbound, 630 pp. Indiana State Library, Indianapolis, Dr. A. A. Lindsey, Editor)

**NAME AND ADDRESS OF INDIVIDUAL WHO SHOULD BE CONTACTED FOR A REPORT ON ACADEMY ACTIVITIES:** James R. Gammon, Dept. of Zoology, DePauw University, Greencastle

### ACTIVITIES

Indiana celebrated its sesquicentennial throughout 1966, and certain Academy activities reflected this theme. Instead of the usual April field trip meeting, the 1966 Spring Meeting consisted of a symposium of semi-popular review papers on Natural Features of Indiana. These were published in book form under the same title in July, with a press run of 5050 copies. The general themes of natural resource conservation, natural area preservation, and contribution of natural features to human welfare run throughout the volume. The Fall Meeting had the usual specialized research papers, but added to this was a rotating History of Science program. No separate meeting was held for that Division, but its chairman appeared in each other division to introduce a broad general paper on the history of that scientific discipline in Indiana. The full papers are being published together, in a separate section of the forthcoming Proceedings volume, to help observe the sesquicentennial year, with a backward look at Indiana science and scientists.

Aside from the two general meetings and their publication sequelae, the major Academy activities have centered around the youth work. This involves many members of the senior Academy, under the general chairmanship of Professor Virgil Heniser. Twelve Regional Science Fairs were held. Abstracts of papers presented in the fall Junior Academy meeting, and a report of the spring assembly furthering the twenty-fifth Annual Science Talent Search, were printed in a youth science journal "The Retort." The Visiting Scientists Program comprised 201 visits.

A new Division of Ecology held its first session at the Fall Meeting.

A new five-man Scientific Areas Preservation Committee was instituted, to inventory natural areas of the State and to recommend two members for a State Nature Preserves Commission provided for in pending legislation, with the passage of which the Academy would play an important though indirect role in establishment and administration of a State System of Nature Preserves.

## IOWA ACADEMY OF SCIENCE

1966

President: John O. Chellevoid, Dept. of Mathematics, Wartburg College,  
Waverly 50677  
Vice President: Adrian M. Docken, Dept. of Chemistry, Luther College,  
Decorah 52101  
Secretary-Treasurer: George W. Peglar, Dept. of Mathematics, Iowa State  
University, Ames 50010  
Editor: Paul Meglitsch, Dept. of Biology, Drake University, Des Moines  
50311

1967

President: Dr. Martin Grant, Dept. of Biology, State College of Iowa, Cedar  
Falls 50613  
Vice President: Adrian M. Docken, Dept. of Chemistry, Luther College,  
Decorah 52101  
Secretary-Treasurer: George W. Peglar, Dept. of Mathematics; Iowa State  
University, Ames 50010  
Editor: Paul Meglitsch, Dept. of Biology, Drake University, Des Moines  
50311

AAAS REPRESENTATIVE: George W. Peglar, Dept. of Mathematics, Iowa State  
University, Ames 50010

SECOND DELEGATE TO THE ACADEMY CONFERENCE: None

SPONSOR OF JUNIOR ACADEMY: Frank Starr, East Waterloo High School,  
Waterloo

SPONSOR OF COLLEGIATE ACADEMY: None

SECTIONS OF ACADEMY: Botany; Chemistry, Inorganic and Physical;  
Chemistry, Organic and Biological; Conservation; Geology;  
Mathematics; Physics; Psychology; Physiology; Science Teaching;  
Zoology

MEMBERSHIP: 2143

ANNUAL MEETINGS: Third week in April, generally. April 19-20, 1968

PUBLICATIONS: Iowa Science Teaching Journal, a quarterly; Proceedings,  
annual; and Proceedings of Iowa Junior Academy.

NAME AND ADDRESS OF INDIVIDUAL WHO SHOULD BE CONTACTED FOR A  
REPORT ON ACADEMY ACTIVITIES: No Permanent Secretary

### ACTIVITIES

The Iowa Academy of Science conducts much of its work through six standing committees. These are the committees on conservation, high school relations,

## IOWA ACADEMY OF SCIENCE ACTIVITIES (continued)

membership, finance and endowment, science talent search, and science teaching. The Board of Directors directs the work of the Academy, various special committees are active, the editor prepares the Proceedings and the Secretary-Treasurer handles his appropriate duties. The Academy publishes the Iowa Science Teachers Journal quarterly.

The Academy administered the Visiting Scientist Program with the cooperation of the State University of Iowa.

The Academy sponsors the Iowa Junior Academy of Science. The Junior Academy holds its meetings concurrently with the Senior Academy.

The Iowa Academy conducts the Iowa Science Talent Search in the high schools, publishes the Iowa Honor Roll, and awards prizes.

The Iowa Academy of Science is affiliated with the American Association for the Advancement of Science and has a representative on its council. An annual grant from the AAAS is available to the Academy for the encouragement of scientific studies by high school students. The Academy is cooperating in the Science Teaching improvement program of the AAAS.

Scientific papers and speeches by prominent scientists are presented at the Academy annual meeting.

## KANSAS ACADEMY OF SCIENCE

1966

President: Dr. Paul Tasch, Dept. of Geology, Wichita State University,  
Wichita 67200  
President-Elect: Dr. Gerald W. Tomanek, Dept. of Biology, Fort Hays  
Kansas State College, Hays 67601  
Vice-President: Dr. Charles A. Leone, Dept. of Zoology, University of  
Kansas, Lawrence 66044  
Secretary: Dr. Robert J. Robel, Dept. of Zoology, Kansas State University,  
Manhattan 66502  
Treasurer: Dr. Howard C. Reynolds, Dept. of Botany, Fort Hays Kansas  
State College, Hays 67601  
Editor: Dr. Delbert Shankel, Dept. of Microbiology, University of Kansas,  
Lawrence 66044  
Managing Editor: Dr. L. R. Batra, Dept. of Botany, University of Kansas,  
Lawrence 66044  
Junior Academy Director: Margaret B. Parker, Dept. of Chemistry, Kansas  
State College at Pittsburg, Pittsburg 66764  
Member at Large: Dr. S. Winston Cram, Dept. of Physical Science, Kansas  
State Teachers' College, Emporia 66764  
Member at Large: Dr. R. Stanley Alexander, Dept. of Physics, Washburn  
University of Topeka, Topeka 66621  
Grants Liaison Officer: Dr. W. David Bemmels, Dept. of Physics, Ottawa  
University, Ottawa 66067  
Local Arrangements Chairman: Dr. Charles B. Creager, Science Division,  
Kansas Wesleyan University, Salina 67401

1967

President: Dr. Gerald W. Tomanek, address same as above  
President-Elect: Charles A. Leone, address same as above  
Secretary: Robert J. Robel, address same as above  
Treasurer: Howard C. Reynolds, address same as above  
Junior Academy Director: Margaret B. Parker, address same as above  
Editor: Delbert Shankel, address same as above  
Managing Editor: L. R. Batra, address same as above  
Grants Liaison Officer: W. David Bemmels, address same as above  
Member at Large: Dr. O. W. Bidwell, Dept. of Agronomy, Kansas State  
University, Manhattan 66502  
Member at Large: Dr. R. Stanley Alexander, address same as above  
Member at Large: Dr. Gilbert A. Leisman, Dept. of Biology, Kansas State  
Teachers' College, Emporia 66801

AAAS REPRESENTATIVE: Dr. R. J. Robel, Dept. of Zoology, Kansas State  
University, Manhattan, KS 66502

SECOND DELEGATE TO ACADEMY CONFERENCE: None

SPONSOR OF JUNIOR ACADEMY: Margaret B. Parker, Dept. of Chemistry,  
Kansas State College at Pittsburg, Pittsburg, KS 66764

## KANSAS ACADEMY OF SCIENCE (continued)

SPONSOR OF COLLEGIATE ACADEMY: None

SECTIONS OF ACADEMY: Botany and Microbiology, Chemistry, Experimental Biology, Geography, Geology, Physics, Zoology

MEMBERSHIP: 483

ANNUAL MEETINGS: One annual meeting -- Spring

PUBLICATIONS: Transactions of the Kansas Academy of Science. Proceedings of Symposia

NAME AND ADDRESS OF INDIVIDUAL WHO SHOULD BE CONTACTED FOR A REPORT ON ACADEMY ACTIVITIES: Dr. Robert J. Robel, Dept. of Zoology, Kansas State University, Manhattan 66502 (Elected for a term of 3 years)

### ACTIVITIES

The Kansas Academy of Science has an extremely active Junior Academy Program. District meets are held, and finalists from these meets compete in the state finals -- the winners of which are invited to present their papers at the next annual Senior Academy meeting. Earnings from a \$25,000 Research Endowment Fund are used to support small research programs. These funds plus about \$1,000/annum are allotted to deserving applicants, most of whom are high school students.

A Science Seminar program is active in Kansas. Several districts have been established in Kansas and speakers from all areas of science are invited to present seminars on their special field.

A 5-man team comprises our Talent Search Committee. They select notable students and present them to the Senior Academy at the Annual meeting. Awards are given at the Annual meeting to both the Talent Search winners and the Junior Academy winners.

The annual meeting consists mainly of presentations of brief research reports in addition to a keynote address by an outstanding out-of-state scientist.

## KENTUCKY ACADEMY OF SCIENCE

1966 - Current Officers until September

President: Mr. Robert M. Boyer, Office of the Dean, College of Arts & Sciences, University of Kentucky, Lexington, Kentucky 40506  
President Elect: Dr. Paul G. Sears, Chemistry Department, University of Kentucky, Lexington 40506  
Vice President: Prof. Orville Richardson, Jr., 2926 Choctow Drive, Owensboro 42301  
Secretary: Mr. Robert S. Larance, Biology Department, Eastern Kentucky University, Richmond 40475  
Treasurer: Dr. C. B. Hamann, Asbury College, Wilmore 40390

AAAS REPRESENTATIVE: Dr. Mary E. Wharton, Biology Department, Georgetown College, Georgetown 40324

SECOND DELEGATE TO THE ACADEMY CONFERENCE: None

SPONSOR OF JUNIOR ACADEMY: Dr. Morris Taylor, Chemistry Department, Eastern Kentucky University, Richmond 40475

SPONSOR OF COLLEGIATE ACADEMY: None

SECTIONS OF ACADEMY: Botany; Chemistry; Geology-Geography; Microbiology; Physics; Psychology; Science Education; Zoology

MEMBERSHIP: 450

ANNUAL MEETINGS: The annual meeting is held in the Fall of each year. Last year (1966) it was at Kentucky Wesleyan College, Owensboro. This year (fall - 1967) it will probably be at the University of Louisville, Louisville. This place is not final.

PUBLICATIONS: The Transactions of the Kentucky Academy of Science  
(Published usually twice each year)

NAME AND ADDRESS OF INDIVIDUAL WHO SHOULD BE CONTACTED FOR A REPORT ON ACADEMY ACTIVITIES: No Permanent Secretary

### ACTIVITIES

The annual meeting of the academy was held on November 12, 1966 at the campus of Kentucky Wesleyan College, Owensboro.

The Junior Academy has had at least one general meeting concerned with preparation for the Science Fair. Projects were discussed at this meeting. The Fair will be held in May, 1967 on the campus of Eastern Kentucky University, Richmond. Last year (1966) it was held, as has been in the past, at the University of Kentucky, Lexington.

## KENTUCKY ACADEMY OF SCIENCE ACTIVITIES (continued)

The Senior Academy sponsors a Visiting Scientist Program. College teachers go out to the High Schools at their request and selection of Scientist. Usually he (she) talks to groups of science students who are interested in his area of concentration. The High Schools have a list of Visiting Scientists and their area of concentration.

## LOUISIANA ACADEMY OF SCIENCES

1966

President: Dr. George Ware, Biology Department, Northwestern State College, Natchitoches  
President-Elect: Beryl Franklin, Biology Department, Northeast Louisiana State College, Monroe  
Secretary: Scott M. Weathersby, Box 201 Tech. Station, Ruston  
Treasurer: James White, Botany Department, Louisiana Polytechnic Institute, Ruston  
Permanent Secretary: Bruce Boudreaux, Department of Entomology, Louisiana State University, Baton Rouge

### Chairmen:

Biological Section: William Reese, Box 854, USL Station, Lafayette  
Physical Sciences Section: James Rhoades, Northwestern State College, Natchitoches  
Social Sciences Section: Donald Rawson, Northwestern State College, Natchitoches  
Collegiate Division: Maude Purdy, Chemistry Department, Louisiana State University, Baton Rouge  
Junior Academy: Charles DePoe, Biology Department, Northeast Louisiana State College, Monroe  
Director, State Science Fair: James Rhoades, Northwestern State College, Natchitoches  
Director of Visiting Scientists Program: Merlin Ohmer, Nicholls State College, Thibodeaux  
Editor, Proceedings: Dr. Nell Causey, Zoology, Louisiana State University, Baton Rouge

1967

President: Dr. Beryl C. Franklin, Northeast State College, Monroe  
President-Elect: Prof. Scott M. Weathersby, Louisiana Tech., Ruston  
Past President: Dr. George H. Ware, Northwestern State College, Natchitoches  
Secretary: Dr. James Rhoades, Northwestern State College, Natchitoches  
Treasurer: Dr. James White, Louisiana Polytechnic Institute, Ruston  
Permanent Secretary: Dr. Bruce Boudreaux, Louisiana State University, Baton Rouge

### Chairmen:

Biological Section: Dr. William Reese, University of Southwestern Louisiana, Lafayette  
Physical Sciences Section: Prof. Marcus Mapp, Northeast State College, Monroe  
Social Sciences Section: Dr. Donald Rawson, Northwestern State College, Natchitoches  
Collegiate Division: Dr. Wayne Hanson, Centenary College, Shreveport  
Junior Academy: Charles DePoe, Northwest Louisiana State College, Monroe  
Director, State Science Fair: James Rhoades, Northwestern State College, Natchitoches

## LOUISIANA ACADEMY OF SCIENCES (1967 Officers continued)

Director of Visiting Scientist Program: Merlin Ohmer, Nicholls State College, Thibodeaux

Editor, Proceedings: Dr. Nell Causey, Louisiana State University, Baton Rouge

AAAS REPRESENTATIVE: Harry J. Bennett, Zoology Department, Louisiana State University, Baton Rouge

SECOND DELEGATE TO ACADEMY CONFERENCE: Dr. Charles DePoe, Department of Biology, Northeast Louisiana State College, Monroe

SPONSOR OF JUNIOR ACADEMY: Charles DePoe, Department of Biology, Northeast Louisiana State College, Monroe

SPONSOR OF COLLEGIATE ACADEMY: Maude Purdy, Department of Chemistry, Louisiana State University, Baton Rouge

SECTIONS OF ACADEMY: Biology, Physical, Social, Collegiate Division, Junior Academy

SUBSECTIONS OF ACADEMY: Behavioral and computer sciences

MEMBERSHIP: 361

ANNUAL MEETINGS: 1967 meetings scheduled for April 28, 29, Centenary College, Shreveport

PUBLICATIONS: Proceedings of the Louisiana Academy of Sciences (annual) Academy Newsletter (semiannually)

NAME AND ADDRESS OF INDIVIDUAL WHO SHOULD BE CONTACTED FOR A REPORT ON ACADEMY ACTIVITIES: Dr. H. Bruce Boudreaux, Department of Entomology Louisiana State University, Baton Rouge

### ACTIVITIES

Science Fair: The 13th Annual Louisiana State Science Fair was held April 7 and 8, 1967 at Northwestern State College. Two hundred forty-two (242) students exhibited. They represented the top winners from 2,473 regional entries. Seventy awards were presented, including an expense paid trip to International Science Fair for top girl and boy winners and their teachers. The 14th Annual Louisiana State Science Fair will be April 5 and 6, 1968.

Junior Academy: The Louisiana Junior Academy of Sciences had a membership of 142 for 1966-67. Forty-eight papers were submitted for judging and the best twenty-seven were presented at the 26th Annual meeting for the Junior Academy held at Centenary College, Shreveport, on April 26 and 27, 1967. Two members, Malcom Robertson, Baton Rouge, and Daniel Morris, New Orleans, will represent the Junior Academy at the National Meeting in New York.

## LOUISIANA ACADEMY OF SCIENCES (continued)

Research Grant: The 1966 AAAS Research Grant in the amount of \$100 was presented to Dr. James L. Rhoades, Northwestern State College, to further his study of plant polyphenol oxidase.

Academy Meeting: The 41st Annual Meeting of the Louisiana Academy of Sciences was held at Centenary College, Shreveport, April 27 and 29, 1967. Fifty-seven professional papers were read. The John B. Entrikin Symposium on Chemical Education was held in conjunction with the meeting.

Visiting Scientists: The Visiting Scientist Program completed 130 visits this year at 60 different schools, reaching a total audience of approximately 18,300. Of 90 Visiting Scientists, 60 completed visits, expending a total of \$5,200 in funds.

## MARYLAND ACADEMY OF SCIENCES

1966 and 1967

Chairman Emeritus of the Board: Mr. Allan C. Davis, Wynnewood Towers  
Apts., 100 W. Cold Spring Lane, Baltimore 21210  
Chairman of the Board: Mr. J. Cookman Boyd, Jr., Sauerwein, Boyd & Decker,  
900 Aurora Federal Building, Charles & Saratoga Streets,  
Baltimore 21201  
President: Dr. Robert P. Rich, Director, University Computing Center,  
The Johns Hopkins University, Applied Physics Laboratory,  
8621 Georgia Avenue, Silver Spring 20910  
Vice President: Miss Helen E. Hale, Coordinator of the Office of Science,  
Baltimore County Public Schools, Aigburth Manor, Towson 21204  
Vice President: Dr. Robert L. DeHaan, Research Embryologist, Carnegie  
Institution of Washington, 115 W. University Parkway, Baltimore  
21210  
Secretary: Mr. James W. Easter, 408 Pleasant Hill Road, Owings Mills  
21117  
Treasurer: Mrs. Robert D. H. Harvey, Chief Executive Officer, Maryland  
National Bank, Baltimore & Light Streets, Baltimore 21203  
Controller: Mr. John L. Buckley, Jr., Controller, McCormick & Co., Inc.  
Light & Barre Streets, Baltimore 21202  
Director: Mr. Nigel O'C. Wolff, Maryland Academy of Sciences, 7 W.  
Mulberry Street, Baltimore 21201

AAAS REPRESENTATIVE: Mr. Nigel O'C. Wolff, Director, Maryland Academy of  
Sciences, 7 West Mulberry Street, Baltimore 21201

SECOND DELEGATE TO ACADEMY CONFERENCE: None

SPONSOR OF JUNIOR ACADEMY: None

SPONSOR OF COLLEGIATE ACADEMY: None

SECTIONS OF ACADEMY: Archeological Society of Maryland; Baltimore Astro-  
nomical Society; Baltimore Mineral Society; Maryland Paleontology  
Society; Human Growth, Inc.; Baltimore Zoological Society;  
Natural History Society.

MEMBERSHIP: 1836

ANNUAL MEETINGS: Usually held in the fall of the year.

PUBLICATIONS: Monthly Newsletter, Bulletins for the Archeological Society  
of Maryland, Graphic Time Table of the Heavens.

NAME AND ADDRESS OF INDIVIDUAL WHO SHOULD BE CONTACTED FOR A  
REPORT ON ACADEMY ACTIVITIES: No permanent secretary.

## MARYLAND ACADEMY OF SCIENCES (continued)

### ACTIVITIES

Visiting Scientist program.

Sessions with Scientists (secondary high school science teachers).

"Have Fun With Science (summer science classes for elementary and junior high school students).

Maryland Junior Science and Humanities Symposium.

"Outstanding Young Scientist of the Year" Award and Annual Meeting.

Maryland Science Talent Search

Baltimore City-County Science Seminars (secondary high school student seminars).

'Round-the-World Adventures' series.

Student Research Grant (AAAS).

Field trips to Franklin Institute, Philadelphia, and Museum of Natural History and Hayden Planetarium in New York.

## MICHIGAN ACADEMY OF SCIENCE

1966

President: Alexander H. Smith, University Herbarium, University of Michigan  
Ann Arbor  
President Elect: James H. Zumberge, President, Grand Valley State College,  
Allendale  
Vice President: Stephen H. Spurr, Dean, Graduate School, University of  
Michigan, Ann Arbor  
Secretary: Erich Steiner, Department of Botany, University of Michigan,  
Ann Arbor  
Treasurer: Burton V. Barnes, School of Natural Resources, University of  
Michigan, Ann Arbor  
Editor: Ralph A. Loomis, Department of English, College of Engineering,  
University of Michigan, Ann Arbor  
Librarian: Frederick H. Wagman, University Library, University of Michigan,  
Ann Arbor

1967

President: James H. Zumberge, President, Grand Valley State College,  
Allendale 49401  
President Elect: Stephen H. Spurr, Dean, Graduate School, University of  
Michigan, Ann Arbor 48104  
Vice President: William R. Keast, President, Wayne State University, Detroit  
48202  
Secretary: Robert A. Martin, Department of English, College of Engineering,  
University of Michigan, Ann Arbor  
Treasurer: Burton V. Barnes, School of Natural Resources, University of  
Michigan, Ann Arbor 48104  
Editor: Ralph A. Loomis, Department of English, College of Engineering,  
University of Michigan, Ann Arbor 48104  
Librarian: Frederick H. Wagman, University Library, University of Michigan,  
Ann Arbor 48104

AAAS REPRESENTATIVE: Dr. George Mallinson, Dean, Graduate School, Western  
Michigan University, Kalamazoo

SECOND DELEGATE TO THE ACADEMY CONFERENCE: None

SPONSOR OF JUNIOR ACADEMY: T. Wayne Taylor, Michigan State University,  
East Lansing

SPONSOR OF COLLEGIATE ACADEMY: None

SECTIONS OF ACADEMY: Medical Sciences, Philosophy, Psychology, Religious  
Studies, Russian and East European Studies, Sociology, Zoology,  
American Studies, Asian Studies, Anthropology, Botany, Economics,  
Entomology, Fine Arts, Fisheries-Wildlife, Folklore, Forestry,  
Geography, Geology-Mineralogy, History-Political Science, Land-  
scape Architecture, Language-Literature, Mathematics

MICHIGAN ACADEMY OF SCIENCE (continued)

MEMBERSHIP: 1632

ANNUAL MEETINGS: One annual meeting held in March

PUBLICATIONS: Papers of the Michigan Academy of Science, Arts, and Letters.

NAME AND ADDRESS OF INDIVIDUAL WHO SHOULD BE CONTACTED FOR A REPORT ON ACADEMY ACTIVITIES: No permanent secretary.

ACTIVITIES

Found in the Academies Annual Report.

## MINNESOTA ACADEMY OF SCIENCE

1966

President: Edmund C. Bray, 452 Otis, St. Paul 55104  
Vice President: Dr. Paul J. Germann, 2006 Marshall Avenue, St. Paul 55104  
Secretary-Treasurer: Dr. William C. Phinney, 251 Patton Road, New Brighton 55112  
Executive Director: Walter G. Larson, 3100 - 38th Avenue South, Minneapolis 55406  
Field Secretary: John R. Crocker, 3100-38th Avenue South, Minneapolis 55406

1967

President: Dr. Paul J. Germann, 2006 Marshall Avenue, St. Paul 55104  
President-Elect: Dr. Richard W. Fulmer, 5011 Second Avenue South, Minneapolis 55419  
Secretary-Treasurer: Richard J. Myshak, 7617 Perry Avenue North, Minneapolis 55429  
Executive Director: Walter G. Larson, 3100-38th Ave. South, Minneapolis  
Field Secretary: John R. Crocker, 3100-38th Ave. South, Minneapolis 55406

AAAS REPRESENTATIVE: Walter G. Larson, 3100-38th Avenue South, Minneapolis 55406

SECOND DELEGATE TO ACADEMY CONFERENCE: Dr. Richard Fulmer, 5011 Second Avenue South, Minneapolis 55419

SPONSOR OF JUNIOR ACADEMY: Mr. Charles W. Anderson, Norwood 55368

SPONSOR OF COLLEGIATE ACADEMY: Walter G. Larson, 3100-38th Avenue South, Minneapolis 55406

SECTIONS OF ACADEMY: Agricultural Science and Technology, Anthropology, Biochemistry, Botany, Chemistry Teachers, Earth Science, Engineering and Industrial Science, Geography, History and Philosophy of Science, Mathematics, Medical Sciences, Minnesota Science Teachers Association, Physics Teachers, Political Science, Science Education, Sigma Delta Epsilon, Sociology, Zoology

MEMBERSHIP: 1,266 Adult, 316 Collegiate, 1,216 Junior Academy, 47 chapters

ANNUAL MEETINGS: September 16-17, 1967, Annual Fall Field Trip - Cedar Creek, April 5-6, 1968, State Science Fair  
April 26-27, 1968, Academy Annual Meeting

PUBLICATIONS: Journal of the Minnesota Academy of Science - 1967 Volume 34, Numbers 1 and 2.

NAME AND ADDRESS OF INDIVIDUAL WHO SHOULD BE CONTACTED FOR A REPORT ON ACADEMY ACTIVITIES: Walter G. Larson, 3100-38th Avenue South, Minneapolis

## MINNESOTA ACADEMY OF SCIENCE (continued)

### ACTIVITIES

The 1966 Annual Meeting was held at Macalester College, St. Paul, on April 15-16, 1966. The Fall Field Trip was held at Winona, Minnesota, on September 17-18, 1966. The emphasis was on the geology of the area and the wildlife of the Mississippi River Valley.

The Junior Academy of Science numbered 1,430 students in 64 chapters in the high schools of Minnesota. The regional and state science fairs included 1,735 projects, 144 research papers which involved 299 schools. Some of the better papers appeared in the Journal of the Minnesota Academy of Science.

The outstanding participants in the Junior Academy programs took part in several national events. Mary Schilling and David Coleman were sent to the International Science Fair at Dallas; Gary Hudson presented his paper at the Academy Conference Junior Science Section meeting in Washington, D. C.; Luther Hanson and David Bargabus attended the National Junior Science and Humanities Symposium at Princeton, New Jersey; Jerry Johnson and James Kangel attended the West Virginia Science Youth Camp; and Robert Dowell was the recipient of the Navy Cruise.

Two Minnesota students qualified in the top 40 in the Westinghouse Talent Search program sponsored by the Academy.

Two-hundred scientists were recruited to serve in the Visiting Scientist Program. Seventy-six scientists made 134 school visits. Twenty institutions of higher learning and nine major industries were involved.

The Junior Academy published two issues of "Transactions" which numbered 3,000 copies containing the best work of the Junior Academy.

The Academy-sponsored Minnesota Science Teachers Association produced a state meeting for about 800 high school teachers during the biennial convention of the Minnesota Education Association.

New amendments were received to continue the curriculum projects under the direction of the Minnesota National Laboratory. The Academy, State Department of Education and the University of Minnesota are partners in these projects which directly involve the states of North Dakota, South Dakota, Iowa, Wisconsin, and Minnesota.

The Academy presents the outstanding work of science students during the 10 days of the Minnesota State Fair. About 5,000 visitors viewed the 15 outstanding projects each day.

The Academy is cooperating with the Minneapolis and St. Paul Chambers of Commerce in establishing a Science Recognition Day for Teachers.

In November the Academy co-sponsored with the National Science Teachers Association the Regional N.S.T.A. Convention held at the new St. Paul Hilton Hotel.

## MINNESOTA ACADEMY OF SCIENCE ACTIVITIES (continued)

New sections of the Academy include the Minnesota Science Teachers Association. Several new sections will be added in 1967.

The scholarship program provided \$3,300 in scholarships to twelve students. We continue to participate in the Grant-in-Aid program of about \$300 yearly co-sponsored with the American Association for the Advancement of Science.

The Academy was involved in the initial planning stages which resulted in the placement of the Upper Midwest Research Educational Laboratory (P.L. 89-10 Title IV) in Minnesota.

The Academy continues an active program to identify and secure natural areas for their preservation and use by the generations to come.

## MISSISSIPPI ACADEMY OF SCIENCES

1966

President: Rondal E. Bell, Millsaps College, Jackson  
President Elect: Ernest E. Russell, Mississippi State University, State College  
Secretary-Treasurer and Executive Officer: Clyde Q. Sheely, Mississippi State University, State College  
Editor: Walter Abbott, Gulf Coast Research Lab, Ocean Springs  
Director, (3 years): James W. Ward, University Medical Center, Jackson  
Director, (2 years): Harold Perlman, Gulfport High School, Gulfport  
Director, (1 year): Gordon Gunter, Gulf Coast Research Lab, Ocean Springs

1967

President: Ernest E. Russell, Mississippi State University, State College  
Secretary-Treasurer: Clyde Q. Sheely, Mississippi State University, State College  
(Other officers not available)

AAAS REPRESENTATIVE: Dr. Joseph F. Fitzpatrick, Drawer Z, State College 39762

SECOND DELEGATE TO ACADEMY CONFERENCE: J. Fred Walker, University of Southern Mississippi, Hattiesburg

SPONSOR OF JUNIOR ACADEMY: Mississippi Academy of Sciences, State College 39762

SPONSOR OF COLLEGIATE ACADEMY: None

SECTIONS OF ACADEMY: Botany and Plant Pathology; Chemistry and Chemical Engineering; Science Education; Geology and Civil Engineering; Zoology and Entomology; Mathematics; Physics; Mechanical and Electrical Engineering

MEMBERSHIP: 350

ANNUAL MEETINGS: Last week-end in April

PUBLICATIONS: Journal of the Mississippi Academy of Sciences  
(Volume XIII will be published in 1967)

NAME AND ADDRESS OF INDIVIDUAL WHO SHOULD BE CONTACTED FOR A REPORT ON ACADEMY ACTIVITIES: Dr. Clyde Q. Sheely, Drawer CQ, State College 39762

### ACTIVITIES

1. Annual Meeting
2. Junior Academy Contest
3. State Science Fair Program

## MISSISSIPPI ACADEMY OF SCIENCES ACTIVITIES (continued)

4. Gulf Coast Research Laboratory
5. Westinghouse Science Talent Search
6. High School Science Visitation Program
7. Accreditation of High School Science Teachers and Science Departments

## MISSOURI ACADEMY OF SCIENCE

1966

President: Dr. William J. James, Director of Materials Research, University of Missouri, Rolla  
Vice President: Dr. Francis V. Morriss, Director of Chemical Division, Midwest Research Institute, Kansas City  
Secretary: Dr. Daniel F. Millikan, Plant Pathologist, Department of Horticulture, University of Missouri, Columbia  
Treasurer: Dr. Marilyn Gaddis Rose, Literature Department, Stephens College, Columbia

1967

President: Dr. Francis V. Morriss, Director of Chemical Division, Midwest Research Institute, Kansas City  
Vice President: Dr. Kenneth Brill, Jr., Chairman of Geology, St. Louis University, St. Louis  
Secretary: Dr. Daniel F. Millikan, Plant Pathologist, Department of Horticulture, University of Missouri, Columbia  
Treasurer: Dr. Marilyn Gaddis Rose, Literature Department, Stephens College, Columbia

AAAS REPRESENTATIVE: Dr. Daniel F. Millikan, Plant Pathologist, Dept. of Horticulture, University of Missouri at Columbia, Columbia

SECOND DELEGATE TO THE ACADEMY CONFERENCE: Dr. Newell Gingrich, Department of Physics, University of Missouri at Columbia, Columbia

SPONSOR OF JUNIOR ACADEMY: Dr. Henry Mitchell, Coordinator of Graduate Studies, University of Missouri, Kansas City

SPONSOR OF COLLEGIATE ACADEMY: Dr. Harold Momberg, Department of Biology, William Jewell College, Liberty

SECTIONS OF ACADEMY: Psychology, Space Sciences, Agriculture, Biology, Chemistry, Economics, Engineering, Entomology, Geography, Geology-Geophysics, Linguistics, Mathematics, Physics, Political Science, Sociology-Anthropology, College (Undergraduate)

MEMBERSHIP: 510 mostly from the academic communities

ANNUAL MEETINGS: Usually a weekend during the last half of April.

PUBLICATIONS: Annual Proceedings

NAME AND ADDRESS OF INDIVIDUAL WHO SHOULD BE CONTACTED FOR A REPORT ON ACADEMY ACTIVITIES: Dr. D. F. Millikan, Plant Pathologist, Horticulture Department, University of Missouri, Columbia

## MISSOURI ACADEMY OF SCIENCE (continued)

### ACTIVITIES

Annual meeting at Columbia, April 15, 1966.

First and second cash prizes for the Biological and Physical Science sections of the Collegiate Paper Sections (\$25.00 and \$10.00).

AAAS-MAS cash awards (\$75.00 and \$50.00) to two college students and to three high school students (\$15.00 each).

Visiting Scientist Program directed by Clayton Johnson.

## MONTANA ACADEMY OF SCIENCES

1966 - 1967

President: George H. Gloege, Eastern Montana College, Billings 59102  
President Elect: Clifford V. Davis, Montana State University, Bozeman 59175  
Past President: Robert E. Lowney, Montana State University, Bozeman 59175  
Board Member: Oliver W. Peterson (1967) Eastern Montana College, Billings 59102  
Board Member: James Habeck (1968), University of Montana, Missoula 59801  
Board Member: Norman K. Jacobson (1969) University of Montana, Missoula 59801  
Vice President-Biological Sciences: Barton E. Hahn, Montana State University, Bozeman 59715  
Vice President-Mathematics-Statistics: Wm. A. Stannard, Eastern Montana College, Billings 59102  
Vice President-Physical Sciences: Arthur S. Howard, Montana State University, Bozeman 59715  
Vice President-Social Sciences: Sister Providencia, College of Great Falls, Great Falls 59401  
Vice President-Teaching of Science: John G. Lepley, Fort Benton High School, Fort Benton 59442  
Executive Secretary: LeRoy H. Harvey, University of Montana, Missoula 59801  
Editor: Junius Larsen, Eastern Montana College, Billings 59102  
Recording Secretary: Eugene W. Elliott, Eastern Montana College, Billings 59102

1967 - 1968

President: Clifford V. Davis, Montana State University, Bozeman 59715  
President Elect: John J. Taylor, University of Montana, Missoula 59801  
Past President: George H. Gloege, Eastern Montana College, Billings 59102  
Board Member: James Habeck, University of Montana, Missoula 59801  
Board Member: Norman K. Jacobson, University of Montana, Missoula 59801  
Board Member: Edward A. Anacker, Montana State University, Bozeman 59715  
Vice President-Biological Sciences: Stephen R. Chapman, Montana State University, Bozeman 59715  
Vice President-Mathematics-Statistics: James T. Smith, Northern Montana College, Havre 59501  
Vice President-Social Sciences: Frank B. Bessac, University of Montana, Missoula 59801  
Vice President-Physical Sciences: Earl H. Hoerger, Rocky Mt. College, Billings 59102  
Vice President-Teaching of Science: Arthur Davidson, Eastern Montana College, Billings 59102  
Executive Secretary: LeRoy H. Harvey, University of Montana, Missoula 59801  
Editor: Junius Larsen, Eastern Montana College, Billings 59102  
Recording Secretary: Eugene W. Elliott, Eastern Montana College, Billings 59102

## MONTANA ACADEMY OF SCIENCES (continued)

Director of the Montana Academy of Sciences Visiting Lecturer Program:

Nathaniel J. Kutzman, Montana State University, Bozeman 59715

AAAS REPRESENTATIVE: LeRoy H. Harvey, University of Montana, Missoula  
59801

SECOND DELEGATE TO ACADEMY CONFERENCE: LeRoy H. Harvey, University  
of Montana, Missoula 59801

SPONSOR OF JUNIOR ACADEMY: None

SPONSOR OF COLLEGIATE ACADEMY: None

SECTIONS OF ACADEMY: Biological Sciences, Mathematics-Statistics, Physical  
Sciences, Social Sciences, Teaching of Science

MEMBERSHIP: 127

ANNUAL MEETINGS: 1968 - Helena, Montana  
1969 - Havre, Montana

PUBLICATIONS: Proceedings of the Montana Academy of Sciences

NAME AND ADDRESS OF INDIVIDUAL WHO SHOULD BE CONTACTED FOR A  
REPORT ON ACADEMY ACTIVITIES: LeRoy H. Harvey, University of Montana,  
Missoula 59801

### ACTIVITIES

We had a successful year for our visiting scientists program. Otherwise,  
only a routine year.

## NEBRASKA ACADEMY OF SCIENCES

1966

President: C. B. Schultz, Nebraska State Museum, 14th and U Streets,  
Lincoln 68508  
President Elect: William M. Barrows, Doane College, Crete 68333  
Executive Secretary: Robert C. Lammason, University of Nebraska, Lincoln  
68508  
Corresponding Secretary: Henry M. Cox, University of Nebraska, Lincoln  
68508  
Treasurer: Howard P. Doole, Dept. of Mathematics, University of Nebraska  
Lincoln 68508  
Councilors: Lyle E. Seymour, Wayne State College Wayne 68787  
Walter G. Elwell, Nebraska Wesleyan University, Lincoln 68504  
Walter E. Mientka, University of Nebraska, Lincoln 68508  
Co-Chairmen of Program Committee: Donald W. Miller and Rober B. Nelson,  
University of Nebraska, Lincoln 68508  
Secretary of Collegiate Academy: Paul H. Laursen, Nebraska Wesleyan  
University, Lincoln 68504  
Secretary of Junior Academy: James A. Rutledge, University of Nebraska,  
Lincoln 68508

1967

President: William M. Barrows, Doane College, Crete 68333  
President Elect: Robert B. Nelson, University of Nebraska, Lincoln 68508  
Executive Secretary: C. B. Schultz, Nebraska State Museum, 14th and U  
Streets, Lincoln 68508  
Corresponding Secretary: Henry M. Cox, 901 North 17th Street, Lincoln  
Treasurer: Howard P. Doole, Dept. of Mathematics, University of Nebraska,  
Lincoln 68508  
Councilors: John C. W. Bliese, Kearney State College, Kearney 68847  
Lyle E. Seymour, Wayne State College, Wayne 68787  
Walter E. Mientka, University of Nebraska, Lincoln 68508  
Chairman of Program Committee: Donald W. Miller, University of Nebraska,  
Lincoln 68508  
Secretary of Collegiate Academy: Walter R. French, Nebraska Wesleyan  
University, Lincoln 68504  
Secretary of Junior Academy: James A. Rutledge, University of Nebraska  
Lincoln 68508  
AAAS REPRESENTATIVE: James A. Rutledge, Department of Secondary Education  
University of Nebraska, Lincoln 68508  
SECOND DELEGATE TO ACADEMY CONFERENCE: William M. Barrows, Doane  
College, Crete 68333  
SPONSOR OF JUNIOR ACADEMY: James A. Rutledge, Department of Secondary  
Education, University of Nebraska, Lincoln 68508

## NEBRASKA ACADEMY OF SCIENCES (continued)

SPONSOR OF COLLEGIATE ACADEMY: Walter R. French, Nebraska Wesleyan University, Lincoln 68504

SECTIONS OF ACADEMY: Anthropology, Biology and Medical Science, Chemistry and Physics, Earth Science, Engineering, History and Philosophy of Science, Science Teaching.

AFFILIATED SOCIETIES: Nebraska Chapter of the National Council of Geographic Education, Nebraska Section of the Mathematical Association of America, Nebraska Section of the National Council of Teachers of Mathematics, Nebraska Psychological Association, Nebraska Ornithologists Union

MEMBERSHIP: 300 Senior and 200 Junior

ANNUAL MEETINGS: April 28-30, 1966, Nebraska Center for Continuing Education, Lincoln; April 28-29, 1967, Nebraska Center for Continuing Education, Lincoln; April 26-27, 1967, Nebraska Center for Continuing Education, Lincoln

PUBLICATIONS: Newsletters, Program, Proceedings, Nebraska Mathematics Contest Report, INQUA publications

NAME AND ADDRESS OF INDIVIDUAL WHO SHOULD BE CONTACTED FOR A REPORT ON ACADEMY ACTIVITIES: Professor C. Bertrand Schultz, 101 Morrill Hall - 14th and U Streets, Lincoln 68508

### ACTIVITIES

The seventy-sixth Annual Meeting of the Nebraska Academy of Sciences was held at the Nebraska Center for Continuing Education in Lincoln on April 28, 29 and 30, 1966. The Manter Symposium on Parasitology was held on Thursday, April 28. The Sixth Maiben Memorial Lecture was given on Friday, April 29, by Dr. G. Robert Coatney on the subject, "Monkeys, Malaria, Mosquitoes, and Man." The Past Presidential Address was given by Professor Walter E. Mientka.

The Academy sponsored for the seventh year the Nebraska Visiting Scientists Program with financial support from the National Science Foundation. Eleven high school seniors were honored as winners and honorable mentions in the Nebraska Science Talent Search sponsored by the Academy as a part of the twenty-fifth Annual Science Talent Search for the Westinghouse Science Scholarship conducted by the Science Clubs of America, a Science Service activity.

The Nebraska Academy of Sciences, in conjunction with the Nebraska Section of the Mathematical Association of America, the Nebraska Section of the National Council of Teachers of Mathematics, and the Nebraska Actuaries Club sponsored the ninth Nebraska Mathematics Contest held in March, 1966.

## NEW JERSEY ACADEMY OF SCIENCE

1966 - 1967

President: Harry M. Frankel, Rutgers University, New Brunswick 08903  
President Elect: Morris H. Saffron, 292 Paulison Avenue, Passaic 07055  
Vice President: James H. Leathem, Rutgers University, New Brunswick 08903  
Secretary: Frederick C. Kull, CIBA Pharmaceutical Co., Summit 07901  
Treasurer: Gerald Kent, Rider College, Lawrenceville 08532

1967 - 1968

President: Morris H. Saffron, 292 Paulison Avenue, Passaic 07055  
President Elect: Frederick C. Kull, CIBA Pharmaceutical Co., Summit 07901  
Vice President: Gerald Kent, Chemistry Department, Rider College, Lawrenceville 08532  
Secretary: Marie T. Spoerlein, Rutgers University, Lincoln Avenue, Newark 07104  
Treasurer: Philip Landis, Mobil Oil Research Labs, Princeton 08540

AAAS REPRESENTATIVE: Not assigned as yet

SECOND DELEGATE TO THE ACADEMY CONFERENCE: Not assigned as yet

SPONSOR OF JUNIOR ACADEMY: Dr. JoAnne Whitaker, 29 Arden Avenue, Somerset 08873

SPONSOR OF COLLEGIATE ACADEMY: No academy

SECTIONS OF ACADEMY: Experimental Biology, Archeology, Plant Sciences, History of Science and Technology

MEMBERSHIP: 958

ANNUAL MEETINGS: 13th Annual Meeting, Rutgers University, South Jersey Campus, Camden

PUBLICATIONS: The Bulletin - Dr. E. M. Ziph Editor  
Newsletter - A. Mittlemark, Editor

### ACTIVITIES

The Junior Academy held its 4th Annual Meeting together with the 13th Annual Meeting of the Academy at Camden. Eight papers were presented. Approximately 125 were in attendance. Representatives from the National Science Foundation and the New Jersey Science Teacher Association were in attendance. A motion of thanks is extended to Dr. Phillip S. Landis for his role as General Chairman of the Annual Meeting. The work of the local Chairman, Dr. Sidney Katz and the many personnel from the South Jersey Campus and others so necessary to run the meeting successfully are also acknowledged.

## NEW JERSEY ACADEMY OF SCIENCE ACTIVITIES (continued)

There was a very large increase in membership in 1966 and this is attributed to the work of several officers and committeemen.

Grants-in-Aid: To date, a total of \$332 has been disbursed (\$132 for 1967) to eight applicants from a total of 24 who applied.

Collegiate Academy: Plans to establish a new division of the Academy were postponed in favor of continuing to establish a more broad base of general membership. An increased liaison between existing divisions, sections and affiliate societies is the initial goal.

Constitution and Bylaws Plus Changes: The working Constitution is that published in the BULLETIN 9: No. 1, Spring issue, 1964 page 51. Certain changes approved at the 1966 Business Meeting.

The New Jersey Academy of Science Publishes the BULLETIN and NEWSLETTER.

## NEW MEXICO ACADEMY OF SCIENCE

1966 and 1967

President: Clay T. Smith, New Mexico Institute of Mining and Technology,  
Socorro  
President Elect: Florence Anderson, Department of Biology, New Mexico State  
University, Las Cruces  
Past President: Raymond Castle, Department of Chemistry, University of New  
Mexico, Albuquerque  
Secretary: E. Lynn Cleveland, Department of Physics, New Mexico State  
University, Las Cruces  
Treasurer: Robert L. S. Amai, Department of Chemistry, New Mexico Highlands  
University, Las Vegas  
Historian: Dr. E. R. Harrington, 223 Cedar, N. E., Albuquerque  
Chairman Membership Committee: Dr. David A. Yos, Department of Biology,  
Eastern New Mexico University, Portales  
Chairman Visiting Scientists Program: Dr. Jay Schufle, Department of Chem-  
istry, New Mexico Highlands University, Las Vegas  
Chairman Nominating Committee: Dr. Raymond Castle  
Chairman Publicity Committee: Dr. Jay Schufle  
Chairman Audit Committee: Dr. Randall Conkling, Department of Physics,  
New Mexico Highlands University, Las Vegas  
Chairman Summer Physics Training Program: Dr. Harold A. Daw, Department  
of Physics, New Mexico State University, Las Cruces  
Chairman Awards Committee: Dr. Ralph W. Dressel, Department of Physics,  
New Mexico State University, Las Cruces  
Chairman Spring and Fall Meetings: Florence Anderson

AAAS REPRESENTATIVE: Dr. Lora Shields, Department of Biology, New Mexico  
Highlands University, Las Vegas 87701

SECOND DELEGATE TO THE ACADEMY CONFERENCE: None

SPONSOR OF JUNIOR ACADEMY: Mrs. Joan Hurley, 3525 Monte Vista Blvd.,  
NE, Albuquerque 87106

SPONSOR OF COLLEGIATE ACADEMY: None

SECTIONS OF ACADEMY: Not divided into sections

MEMBERSHIP: 325

ANNUAL MEETINGS: About April and October 10. Summer meeting, June or  
July

PUBLICATIONS: NMAS Bulletin (Usually two issues per year). NMAS News-  
letter (Usually four issues per year). 50-year History of NMAS  
(Released in 1967).

## NEW MEXICO ACADEMY OF SCIENCE (continued)

NAME AND ADDRESS OF INDIVIDUAL WHO SHOULD BE CONTACTED FOR A REPORT ON ACADEMY ACTIVITIES: Not permanent, elected for three year term. Dr. E. L. Cleveland, Professor of Physics, New Mexico State University, Box D, University Branch, Las Cruces 88001

### ACTIVITIES

Junior Academy of Science - inactive during 1966 but active in 1967.  
Science Fairs - held annually about 1 April at N. M. Institute of Mines & Technology, Socorro, N. M.

Visiting Scientists Program - About 70 visits were made to high schools in the state of N. M. by members of the Academy. The visitors were in the fields of biology, chemistry, engineering, geology, mathematics, physics, etc.

NMAS Award - the 1966 NMAS award went to Dr. J. L. Riebsomer, Department of Chemistry, University of New Mexico, Albuquerque.

AFOSR - a dinner meeting was held jointly with the Air Force Office of Scientific Research, in Albuquerque, in June.

Spring meeting - the spring meeting of the NMAS was held at the New Mexico State University, Las Cruces, in May. This was a joint meeting of the Southwestern and Rocky Mountain Division of the AAAS and the NMAS.

Fall meeting - the annual fall meeting was held at Eastern New Mexico State University, Portales, in October.

Summer Conference - A two-day conference was held at the Los Alamos Scientific Laboratory in July. The speakers were all staff members at LASL.

SPTP - A Summer Physics Training Program, supported by the states of New Mexico and jointly sponsored by the NMAS and NMSU, was held for six weeks during the summer of 1966, for 32 eleventh year high school students chosen from about 200 applicants from all over New Mexico.

## NEW ORLEANS ACADEMY OF SCIENCES

1966

President: Karlem Riess, Dept. Physics, Tulane University, New Orleans  
70118

Vice President: Eddy S. Kalin, Newman School, 1831 Jefferson Avenue, New  
Orleans 70115

Secretary: Raymond Bergeron, 4013 D'Hemecourt Street, New Orleans 70115

Treasurer: Joseph J. Kyame, Dept. Physics, Tulane University, New Orleans  
70118

Curator: Karlem Riess, Dept. Physics, Tulane University, New Orleans  
70118

1967

President: Karlem Riess, Dept. Physics, Tulane University, New Orleans  
70118

Vice President: John M. Lee, 3130 Delachaise St., New Orleans

Secretary: Raymond Bergeron, 4013 D'Hemecourt Street, New Orleans

Treasurer: Joseph J. Kyame, Dept. Physics, Tulane University, New Orleans  
70118

Curator: Karlem Riess, Dept. Physics, Tulane University, New Orleans 70118

AAAS REPRESENTATIVE: Dr. Karlem Riess, Dept. Physics, Tulane University,  
New Orleans 70118

SECOND DELEGATE TO THE ACADEMY CONFERENCE: None

SPONSOR OF JUNIOR ACADEMY: Mrs. LaWana Stewart, Metairie Park County  
Day School, 300 Park Road, Metairie

SPONSOR OF COLLEGIATE ACADEMY: None

SECTIONS OF ACADEMY: None

MEMBERSHIP: 200

ANNUAL MEETINGS: November-December

PUBLICATIONS: None

### ACTIVITIES

Sponsorship of Junior Academy

Sponsorship of Region IX Louisiana Junior Paper Reading Contest.

Joint sponsorship with Chamber of Commerce of Region IX Science Fair.

Public Lectures - 3 to 4 a year.

## NORTH DAKOTA ACADEMY OF SCIENCE

1966

President: Dr. F. D. Holland, Geology Department, University Station,  
University of North Dakota, Grand Forks 58201  
President-Elect: Dr. W. S. Dinusson, Animal Husbandry, State University  
Station, North Dakota State University, Fargo 58102  
Secretary-Treasurer: Ben G. Gustafson, Extension Division, University  
Station, University of North Dakota, Grand Forks 58201

1967

(Not Available)

AAAS REPRESENTATIVE: Dr. F. Rathmann, College of Chemistry and Physics,  
North Dakota State University, Fargo 58102

SECOND DELEGATE TO ACADEMY CONFERENCE: None

SPONSOR OF JUNIOR ACADEMY: None

SPONSOR OF COLLEGIATE ACADEMY: None

SECTIONS OF ACADEMY: None

MEMBERSHIP: 438

ANNUAL MEETINGS: First Friday and Saturday of May each year.

PUBLICATIONS: Annual Proceedings with Papers

NAME AND ADDRESS OF INDIVIDUAL WHO SHOULD BE CONTACTED FOR A  
REPORT ON ACADEMY ACTIVITIES: Ben G. Gustafson, Elected for three years -  
To May 1, 1969

### ACTIVITIES

Annual two-day meeting; Publication of Proceedings with papers; Help to sponsor state high school science fair; Sponsor student research competition with awards and publications.

Print best high school student research paper for the year in the Annual Proceedings; Sponsor high school science visitation programs; Official state academy by legislative action.

## NORTHERN NEW ENGLAND ACADEMY OF SCIENCE

1966

President: Dr. Paul E. Schaefer, Dept. of Zoology, University of New Hampshire, Spaulding Life Sci. Building, Durham, N. H. 03824  
Vice President: Dr. Charles W. Major, Dept. of Zoology, University of Maine, Coburn Hall, Orono, Maine  
Secretary-Treasurer: Glenn W. Stewart, James Hall, Dept. of Geology, University of New Hampshire, Durham, N. H. 03824

1967

President: Dr. Charles W. Major, Dept. of Zoology, University of Maine, Orono, Maine  
Vice President: Dr. John A. Hockwood, Dept. of Physics, DeMerritt Hall, University of New Hampshire, Durham, N. H. 03824  
Secretary-Treasurer: Same as above

AAAS REPRESENTATIVE: Glenn W. Stewart, James Hall, Dept. of Geology, University of New Hampshire, Durham, N. H. 03824

SECOND DELEGATE TO ACADEMY CONFERENCE: None

SPONSOR OF JUNIOR ACADEMY: None

SPONSOR OF COLLEGIATE ACADEMY: None

SECTIONS OF ACADEMY: None

MEMBERSHIP: 242

ANNUAL MEETINGS: May 1967

PUBLICATIONS: Bulletin (Spring and Fall)

NAME AND ADDRESS OF INDIVIDUAL WHO SHOULD BE CONTACTED FOR A REPORT ON ACADEMY ACTIVITIES: No Permanent Secretary

### ACTIVITIES

Visiting Scientist Program; Research Grants-in-Aid to High School Students; Participation in Science Fairs - members from all three states. Academy continues to be a sponsor of the New Hampshire Science Fair.

## OHIO ACADEMY OF SCIENCE

1966

President: Dr. E. Oscar Woolfolk, Dept. of Chemistry, Central State University  
Wilberforce 45384  
President Elect: Dr. Joseph K. Balogh, Dept. of Sociology, Bowling Green  
State University, Bowling Green 43402  
Past President: Dr. Richard A. Popham, Dept. of Botany and Plant Pathology,  
Ohio State University, Columbus 43210  
Secretary: Prof. A. S. Bradshaw, Dept. of Zoology, Ohio Wesleyan University,  
Delaware 43015  
Treasurer: Prof. C. Wayne Ellett, Dept. of Botany and Plant Pathology, Ohio  
State University, Columbus 43210  
Historian-Archivist: Dr. Ralph W. Dexter, Dept. of Biological Sciences, Kent  
State University, Kent 44240  
Executive Officer: John H. Melvin, Ohio Academy of Science, 505 King  
Avenue, Columbus 43201

1967

President: Dr. Joseph K. Balogh, Department of Sociology, Bowling Green  
State University, Bowling Green 43402  
President Elect: Dr. Ralph W. Dexter, Dept. of Biological Sciences, Kent  
State University, Kent 44240  
Past President: Dr. E. Oscar Woolfolk, Dept. of Chemistry, Central State  
University, Wilberforce 45384  
Secretary: Prof. A. S. Bradshaw, (Same as above)  
Treasurer: Prof. C. Wayne Ellett, (Same as above)  
Historian-Archivist: Prof. Ronald L. Stuckey, Dept. of Botany and Plant  
Pathology, Ohio State University, Columbus 43210  
Executive Officer: John H. Melvin (Same as above)  
  
AAAS REPRESENTATIVE: John H. Melvin, Executive Officer, Ohio Academy of  
Science 505 King Avenue, Columbus 43201  
  
SECOND DELEGATE TO THE ACADEMY CONFERENCE: Prof. G. Gerald Acker,  
Dept. of Biology, Bowling Green State Univ., Bowling Green 43402  
  
SPONSOR OF JUNIOR ACADEMY: Prof. G. Gerald Acker, Dept. of Biology,  
Bowling Green State University, Bowling Green 43402  
  
SPONSOR OF COLLEGIATE ACADEMY: Hobart H. Bell, Director, Undergraduate  
Science Research Program, Ohio Academy of Science, 505 King  
Avenue, Columbus  
  
SECTIONS OF ACADEMY: Zoology, Plant Sciences, Geology, Medical Sciences,  
Physics and Astronomy, Geography, Chemistry, Science Education,  
Anthropology and Sociology, Conservation, Genetics and Mathe-  
matical Sciences

MEMBERSHIP: 2520

## OHIO ACADEMY OF SCIENCE (continued)

ANNUAL MEETINGS: 75th Anniversary Meeting, Ohio State University, Columbus April 21, 22, and 23, 1966. Approximately 250 research papers presented, including 22 by high school students. Attendance, approximately 1000.

PUBLICATIONS: Oasis, our member newsletter, as needed. Publication of six issues of the Ohio Journal of Science (total of 652 pages); two issues of the Ohio Academy of Science News (11,000 distribution per issue). For further information write - Dr. Jane Forsyth, Dept. of Geology, Bowling Green State University, Bowling Green 43402

NAME AND ADDRESS OF INDIVIDUAL WHO SHOULD BE CONTACTED FOR A REPORT ON ACADEMY ACTIVITIES: John H. Melvin, Executive Officer, Ohio Academy of Science 505 King Avenue, Columbus 43201

### ACTIVITIES

In addition to the annual meeting and the publications, our Academy:

- \*Conducted for the sixth year the NSF supported Visiting Scientists Program. (540 visits in 79 of Ohio's 88 counties)

- \*Conducted the NSF supported Undergraduate Research Program which produced 29 papers for the Annual Meeting.

- \*Contracted with the Ohio State University Press for publication of Volume 1 of The Vascular Flora of Ohio, a project financed by NSF.

- \*Administered a grant from NSF which permitted the Ohio Journal of Science to clean up a one-year backlog of scientific papers.

- \*Conducted a statewide science scholarship competition.

- \*Made nine grants for research.

- \*Continued a study of high school science teacher certification.

- \*Sponsored the Statewide Science Day Program which now involves some 40,000 high school science students.

- \*Conducted, with the support of Ohio industries, the U. S. Army and other organizations, a Junior Science and Humanities Symposium.

- \*Sponsored 100 high school science projects at the Ohio State Fair

- \*Honored ten outstanding high school science teachers.

- \*Selected ten outstanding high school science departments.

- \*Conducted at the Annual Meeting an NSF supported Junior Academy Session of twenty papers by high school students.

- \*Prepared and distributed to all Ohio high school science teachers a workbook of suggested research projects for students.

- \*Operated a full-time Executive Office which worked closely with many other organizations having similar objectives and acted as a clearing house for all manner of inquiries concerning science and scientists.

## OKLAHOMA ACADEMY OF SCIENCE

1966

President: Dr. Cecil R. Williams, Department of Biology, Phillips University,  
Enid 73701  
Vice President: Dr. Norman H. Boke, Department of Botany & Microbiology,  
The University of Oklahoma, Norman 73069  
Secretary-Treasurer: Dr. Robert C. Fite, Arts and Science Extension,  
Oklahoma State University, Stillwater 74074  
Assistant Secretary-Treasurer: Dr. Doyle E. Anderegg, Department of Botany  
& Microbiology, The University of Oklahoma, Norman 73069  
Permanent Secretary: Dr. J. Teague Self, Department of Zoology, The  
University of Oklahoma, Norman 73069

1967

President: Dr. Carl D. Riggs, Graduate College, University of Oklahoma,  
Norman 73069  
President-Elect: Dr. Robert C. Fite, Arts and Sciences Extension,  
Oklahoma State University, Stillwater 74074  
Secretary-Treasurer: Dr. Doyle E. Anderegg, Department of Botany &  
Microbiology, University of Oklahoma, Norman 73069  
Assistant Secretary-Treasurer: Dr. Paul Buck, Department of Life Sciences,  
Tulsa University, Tulsa, 74104  
Permanent Secretary: Dr. J. Teague Self, Department of Zoology, University  
of Oklahoma, Norman 73069

AAAS REPRESENTATIVE: Dr. J. Teague Self, Department of Zoology, The  
University of Oklahoma, Norman 73069

SECOND DELEGATE TO ACADEMY CONFERENCE: Dr. Robert C. Fite, Arts  
and Sciences Extension, Oklahoma State University, Stillwater  
74074

SPONSOR OF JUNIOR ACADEMY: Dr. Robert C. Fite, Arts & Sciences Extension  
Oklahoma State University, Stillwater 74074

SPONSOR OF COLLEGIATE ACADEMY: Dr. J. Teague Self, Department of Zoology,  
The University of Oklahoma, Norman 73069

SECTIONS OF ACADEMY: Biological Sciences, Geology, Physical Sciences,  
Social Sciences, Science Education, Geography, Conservation,  
Microbiology, Engineering Sciences, Community Services

MEMBERSHIP: 672

ANNUAL MEETINGS: The annual meeting is held each year during the first  
full weekend in December. 1966, Oklahoma University; 1967,  
Oklahoma City University; 1968, Tulsa University; 1969 Central  
State University (Edmond); 1970, Oklahoma State University.

## OKLAHOMA ACADEMY OF SCIENCE (continued)

PUBLICATIONS: Proceedings of the Oklahoma Academy of Science (annual)

NAME AND ADDRESS OF INDIVIDUAL WHO SHOULD BE CONTACTED FOR A  
REPORT ON ACADEMY ACTIVITIES: Dr. J. Teague Self, Department of Zoology,  
University of Oklahoma, Norman 73069

### ACTIVITIES

During 1966 the Oklahoma Academy of Science sponsored a Junior Academy, a Visiting Scientist program and a Collegiate academy as well as a 2-day Spring (Field Trips) Meeting, in addition to the regular annual meeting.

## OREGON ACADEMY OF SCIENCE

### Officers 1966

President: Dr. Wendell Slabaugh, Assoc. Dean, Graduate School, Oregon State University, Corvallis 97331  
Vice-President: because of moribund activity of Academy, there was none.  
Secretary: Dr. Keith F. Oles, Department of Geology, Oregon State University, Corvallis 97331  
Treasurer: Dr. Allan Kayes, Department of Geology, University of Oregon, Eugene

### 1967

President: Dr. Don W. Schafroth, Portland State College, P. O. Box 751, Portland 97207  
Vice-President: Dr. Anton Postl, Oregon College of Education, Monmouth  
Secretary: Dr. Keith F. Oles, Department of Geology, Oregon State University, Corvallis 97331  
Treasurer: Dr. H. Darwin Reese, Department of Chemistry, Oregon State University, Corvallis 97331

AAAS REPRESENTATIVE: Dr. Cecil R. Monk, Willamette University, Salem 97301

SECOND DELEGATE TO ACADEMY CONFERENCE: None

SPONSOR OF JUNIOR ACADEMY: Mr. Lewis H. Schaad, Corvallis Senior High School, Corvallis 97330

SPONSOR OF COLLEGIATE ACADEMY: None

SECTIONS OF ACADEMY: BIOLOGY - Chairman, Dr. Donald R. Breakey, Willamette University, Salem 97301. GEOLOGY-GEOGRAPHY - Co-chairmen, Dr. Cyrus W. Field, Department of Geology, Oregon State University, Corvallis 97331 and Dr. Robert E. Frenkel, Department of Geography, Oregon State University, Corvallis 97331. CHEMISTRY - Dr. William J. Randall, Lewis and Clark College, P. O. Box 313, Portland 97219. MATHEMATICS - Dr. William Stone, Department of Mathematics, Oregon State University, Corvallis 97331.

MEMBERSHIP: 156

PUBLICATIONS: Newsletter at sporadic intervals.

NAME AND ADDRESS OF INDIVIDUAL WHO SHOULD BE CONTACTED FOR A REPORT ON ACADEMY ACTIVITIES: No permanent secretary.

## OREGON ACADEMY OF SCIENCE (continued)

### ACTIVITIES

The year 1967 was a rebuilding year. Under the leadership of Dr. Wendell Slabaugh, steps were initiated to resurrect the Academy. He, as the elected vice-president for the preceding year, assumed the position of President, appointed Dr. Oles as the temporary secretary, requested Dr. Allan Kayes to continue as Treasurer, and recruited section chairmen. The result was a sequence of newsletters, various executive meetings, and an Annual Meeting held in February 1967 at Willamette University. Over 150 attended this meeting, and papers were presented in each of the four sections, and new officers were elected for the 1967-68 year. In conjunction with the Annual Meeting, Mr. Schaad organized a full sequence of papers and a Junior Academy meeting was held in conjunction with the Senior Academy. Over 50 attended the Junior Academy meeting. Additionally, the Academy co-sponsored the Visiting Scientist program of science speakers to state high schools. The moving spirit behind this is Dr. Frederick Tabbutt of Reed College, Portland, Oregon.

Under the leadership of the new president, Dr. Don Schafroth, it is hoped that the Academy will expand its activities and flourish.

## PENNSYLVANIA ACADEMY OF SCIENCE

1966 and 1967

President: E. Willard Miller, Pennsylvania State University, University Park, 16802

President Elect: Mr. Robert S. Chase, Lafayette College, Easton 18042

Secretary: Bernard Fried, Lafayette College, Easton 18042

Treasurer: Charles W. Rutschky, III, Pennsylvania State University, University Park 16802

Editor: William A. Uricchio, Mount Mercy College, Pittsburgh 15213  
(Editor of the "Proceedings")

Editor: Phyllis C. Martin, Point Park College, Pittsburgh 15222 (Editor of the "Newsletter")

AAAS REPRESENTATIVE: Dr. E. Willard Miller, The Pennsylvania State University, University Park 16802

SECOND DELEGATE TO THE ACADEMY CONFERENCE: Dr. Bernard Fried, Secretary, Pennsylvania Academy of Science, Lafayette College, Dept. of Biology, Easton 18042

SPONSOR OF JUNIOR ACADEMY: Mr. Robert Hansen, Edinboro State College, Edinboro

SPONSOR OF COLLEGIATE ACADEMY: None

SECTIONS OF ACADEMY: Senior and Junior Academy

MEMBERSHIP: 694

ANNUAL MEETINGS: April 6-7, 1967, Susquehanna University, Selinsgrove

PUBLICATIONS: Proceedings and Newsletter

NAME AND ADDRESS OF INDIVIDUAL WHO SHOULD BE CONTACTED FOR A REPORT ON ACADEMY ACTIVITIES: Dr. Bernard Fried, Dept. of Biology, Lafayette College, Easton 18042

### ACTIVITIES

The Pennsylvania Academy of Science is a non-profit incorporated society, founded in 1924, dedicated to the encouragement of scientific activities in the Commonwealth.

An opportunity, through annual meetings, to present the results of scientific studies, exchange ideas with scientists in your own and other disciplines and participate in decisions relative to the advancement of science in Pennsylvania.

An opportunity for publication of the results of original scientific research in the "Proceedings" and receipt of two numbers of the "Proceedings" and six issues of the "Newsletter" per year.

## PENNSYLVANIA ACADEMY OF SCIENCE ACTIVITIES (continued)

Support of a program directed toward the discovery of scientific ability in Pennsylvania youth at the secondary school and college level.

An opportunity for increased knowledge of Pennsylvania scientific resources, institutions, industry and scientific personnel by means of field trips and meetings held throughout the state.

Through the American Association for the Advancement of Science the Academy has funds to support investigations of individual members. Interested scientists are requested to submit a formal application for consideration by an Academy committee. The Darbaker Award is offered annually as recognition of an outstanding contribution in the area of microscopical biology.

The Junior Academy offers a first prize of \$100 and a second prize of \$50 to outstanding students at the secondary level who show promise in science.

The Academy sponsors a Junior Academy of Science composed of outstanding high school students who have a strong interest in science. The Junior Academy holds a number of regional meetings through the state and an annual meeting at which regional winners present papers.

## ROCHESTER ACADEMY OF SCIENCE

1966

President: Stephen C. Weber, 302 Beresford Road, Rochester, N. Y. 14610

Vice President: Udell B. Stone, 303 Troy Road, Rochester, N. Y. 14618

Recording Secretary: Miss Dorothy Lind, 190 Weldon St., Rochester, N. Y.  
14611

Corresponding Secretary: Mrs. D. E. Jensen, 199 East Brook Road, Rochester  
14534

Treasurer: John W. Foster, 14 Utica Place, Rochester, N. Y. 14608

1967

President: Dr. Neil S. Mood, 25 Edgewater Lane, Rochester, N. Y. 14617

Vice President: Kenneth J. Brown, 122 Ellington Road, Rochester, N. Y.  
14616

Recording Secretary: Same as above

Corresponding Secretary: Same as above

Treasurer: Ralph K. Dakin, 720 Pittsford-Victor Road, Pittsford, N. Y. 14534

AAAS REPRESENTATIVE:

SECOND DELEGATE TO THE ACADEMY CONFERENCE: None

SPONSOR OF JUNIOR ACADEMY: None

SPONSOR OF COLLEGIATE ACADEMY: Rochester Academy of Science, Inc.,  
199 East Brook Road, Pittsford, N. Y. 14534

SECTIONS OF ACADEMY: Astronomy, Botany, Ornithology, Mineralogical

MEMBERSHIP: 480

ANNUAL MEETINGS: January of each year

PUBLICATIONS: Rochester Academy of Science Proceedings

NAME AND ADDRESS OF INDIVIDUAL WHO SHOULD BE CONTACTED FOR A  
REPORT ON ACADEMY ACTIVITIES: Mrs. D. E. Jensen, Corresponding  
Secretary, (see above).

### ACTIVITIES

The Academy has no Junior Academy as such, just junior members.

The Astronomy Section has observation nights every month. This section has public observation nights at the Rochester Museum and gives lectures at these meetings.

The Botany, Ornithology, and Mineralogical Sections have many field trips.

## ROCHESTER ACADEMY OF SCIENCE ACTIVITIES (continued)

The Academy holds at least 5 public lectures during the year. Its annual meeting is held in January.

The Mineralogical Section is planning its first Gem and Mineral Show in May.

Original papers of a scientific nature in the natural science fields are published in the Rochester Academy of Science Proceedings.

## SAINT LOUIS ACADEMY OF SCIENCE

1966 and 1967

President: Stratford Lee Morton, Home #6 Brentmoor Park, St. Louis 63105  
(1036 Boatmen's Bank Building, St. Louis 63102)  
Vice President: Jules D. Campbell, 4 Westerly Lane, St. Louis 63124  
Vice President: Carl J. Miller, 9828 Crestwick Lane, St. Louis 63128  
Vice President: Fred Hume, 245 Union Boulevard, St. Louis 63108  
Secretary: Roy W. Jordan, 237 Linden, St. Louis 63105  
Treasurer: Edwin Andrew, 222 South Meramec, St. Louis 63105  
Assistant Secretary: (Mrs.) Marguerite D. Yates, 550 Wardner Avenue,  
St. Louis 63130

AAAS REPRESENTATIVE: Donn P. Brazier, Director of Musuem, Oak Knoll  
Park, St. Louis 63105

SECOND DELEGATE TO ACADEMY CONFERENCE: William L. Groth, Supervisor  
of Education, Museum of Science, Oak Knoll Park, St. Louis 63105

SPONSOR OF JUNIOR ACADEMY: None

SPONSOR OF COLLEGIATE ACADEMY: None

SECTIONS OF ACADEMY: Museum of Science and Natural History

MEMBERSHIP 1200

ANNUAL MEETINGS: January or Spring

PUBLICATIONS: Your Museum

NAME AND ADDRESS OF INDIVIDUAL WHO SHOULD BE CONTACTED FOR A  
REPORT ON ACADEMY ACTIVITIES: No Permanent Secretary

### ACTIVITIES

Same as last year.

## SOUTH CAROLINA ACADEMY OF SCIENCE

1966

President: Dr. R. H. Gadsden, Medical College of South Carolina, Charleston  
29401

President Elect: Dr. J. W. Morris, 3418 Meadow Drive, Aiken 29801

Secretary-Treasurer: William A. Parker, Wofford College, Spartanburg 29301

1967

President: Dr. J. W. Morris, 3418 Meadow Drive, Aiken 29801

President Elect: Dr. Wade T. Batson, Biology Department, University of  
South Carolina, Columbia 29208

AAAS REPRESENTATIVE: Dr. F. I. Brownley, Jr., Clemson University, Clemson  
29631

SECOND DELEGATE TO ACADEMY CONFERENCE: None

SPONSOR OF JUNIOR ACADEMY: None. We are in the process of forming  
a Junior Academy.

SPONSOR OF COLLEGIATE ACADEMY: None

SECTIONS OF ACADEMY: Biology, Chemistry-Physics, Economics, Psychology

MEMBERSHIP: 499 regular members, 187 student members

ANNUAL MEETINGS: Late April

PUBLICATIONS: Bulletin of the South Carolina Academy of Science

NAME AND ADDRESS OF THE INDIVIDUAL WHO SHOULD BE CONTACTED FOR  
A REPORT ON ACADEMY ACTIVITIES: None. The secretary to be elected in  
1968 is to be elected for a 6-year term.

### ACTIVITIES

Sponsored Science Fairs.

Administered AAAS Research Grant.

1966 Meeting, Presbyterian College, Clinton, South Carolina, April 22-23,  
1966.

## SOUTH DAKOTA ACADEMY OF SCIENCE

### Officers 1966

President: Robert Sandvig, South Dakota School of Mines and Technology,  
Rapid City  
President Elect: Walter Morgan, South Dakota State University, Brookings  
1st Vice-President: Charles Sidlo, Washington High School, Sioux Falls  
2nd Vice-President: C. L. Hills, Dakota Wesleyan University, Mitchell  
Editor: W. O. Read, University of South Dakota, Vermillion  
Secretary-Treasurer: T. VanBruggen, University of South Dakota, Vermillion

### 1967

President: Walter Morgan, South Dakota State University, Brookings  
President-Elect: Charles Sidlo, Washington High School, Sioux Falls  
1st Vice-President: C. L. Hills, Dakota Wesleyan University, Mitchell  
2nd Vice-President: Roy Kintner, Augustana College, Sioux Falls  
Editor: W. O. Read, University of South Dakota, Vermillion  
Secretary-Treasurer: T. VanBruggen, University of South Dakota, Vermillion

AAAS REPRESENTATIVE: None

SECOND DELEGATE TO ACADEMY CONFERENCE: None

COMMITTEE CHAIRMAN OF JUNIOR ACADEMY: J. Konsler, Huron College,  
Huron

COMMITTEE CHAIRMAN OF COLLEGIATE ACADEMY: Jack Gaines, South  
Dakota School of Mines and Technology, Rapid City

SECTIONS OF ACADEMY: Senior Academy, Collegiate Academy and Junior  
Academy all sponsored by the Senior Academy, South Dakota  
Academy of Science

MEMBERSHIP: Senior Academy - 293; Collegiate Academy - 47; Junior  
Academy - 121

ANNUAL MEETINGS: Held at a University campus, last Friday and Saturday  
of April. April 28-29, 1967 at South Dakota State University,  
Brookings. April 26-27, 1968 at Huron College, Huron.

PUBLICATIONS: Annual Proceedings of the South Dakota Academy of Science,  
Volume 45 published in 1966.

NAME AND ADDRESS OF INDIVIDUAL WHO SHOULD BE CONTACTED FOR A  
REPORT ON ACADEMY ACTIVITIES: T. VanBruggen, University of South Dakota,  
Vermillion

### ACTIVITIES

Junior Academy; Collegiate Section; Visiting Scientists; Annual Meeting;  
Saturday Seminars.

## SOUTHERN CALIFORNIA ACADEMY OF SCIENCE

1966

President: Dr. Jay M. Savage, Dept. of Biological Sciences, University of Southern California, Los Angeles 90007  
1st Vice President: Dr. William J. Morris, 4945 Rupert Lane, La Canada 91011  
2nd Vice President: Dr. Charles McLaughlin, Los Angeles County Museum of Natural History, 900 West Exposition Blvd., Los Angeles 90007  
Secretary: Dr. Charles E. Rozaire, Los Angeles County Museum of Natural History 900 West Exposition Blvd., Los Angeles 90007  
Treasurer: Mr. Russell E. Belous, Los Angeles County Museum of Natural History 900 West Exposition Blvd., Los Angeles 90007  
Editor: Dr. David Caldwell, Los Angeles County Museum of Natural History, 900 West Exposition Blvd., Los Angeles 90007

1967

President: Dr. Jay M. Savage, (same as above)  
1st Vice President: Dr. William J. Morris (same as above)  
2nd Vice President: Dr. Henry Childs, 11110 East Alondra Blvd., Norwalk 90651  
Secretary: Dr. Charles E. Rozaire (same as above)  
Treasurer: Mr. Russell E. Belous (same as above)  
Editor: Dr. Donald J. Reish, Dept. of Biological Sciences, Long Beach 90804

AAAS REPRESENTATIVE: Dr. John L. Mohr, 3819 Chanson Drive, Los Angeles 90043

SECOND DELEGATE TO THE ACADEMY CONFERENCE: None

SPONSOR OF JUNIOR ACADEMY: Dr. Richard B. Loomis, Dept. of Biology, California State College, Long Beach 90804

SPONSOR OF COLLEGIATE ACADEMY: None

SECTIONS OF ACADEMY: Anthropology, Botany, Earth Sciences, Experimental Biology, Invertebrate Zoology, Vertebrate Zoology

MEMBERSHIP: 347 individual members; 78 subscriptions; 95 exchanges

ANNUAL MEETINGS: One in May

PUBLICATIONS: Bulletin (issued quarterly); Memoirs (issued irregularly)

NAME AND ADDRESS OF INDIVIDUAL WHO SHOULD BE CONTACTED FOR A REPORT ON ACADEMY ACTIVITIES: No Permanent Secretary

### ACTIVITIES

An annual meeting is held each May lasting one day during which scientific papers are read in concurrent sessions. There is an award given to the student who presents the best paper. There is a banquet with speaker.

The Academy held meetings of the various sections at which a scientific paper was presented. The meetings are open to the public without charge.

## TENNESSEE ACADEMY OF SCIENCE

1966 - 1967

President: Melburn R. Mayfield, Dept. of Physics, Austin Peay State College, Clarksville 37040  
President Elect: Norman Campbell, Box 879, University of Tennessee, Martin Branch, Martin 38237  
Secretary: James D. Caponetti, Dept. of Botany, University of Tennessee, Knoxville 37916  
Treasurer: Robert L. Wilson, Dept. of Geology and Geography, University of Chattanooga, Chattanooga 37403  
Editor: Donald Caplenor, Tennessee Technical University, Box 186A, Cookeville 38501  
Director Reelfoot Lake Biological Station: Clinton L. Baker, Department of Biology, Southwestern at Memphis, Memphis 38112

1967 - 1968

President: Norman Campbell, Box 879, University of Tennessee - Martin Branch, Martin 38237  
President Elect: Roger Rusk, Dept. of Physics, University of Tennessee, Knoxville 37916  
Secretary: James D. Caponetti, Dept. of Botany, University of Tennessee, Knoxville 37916  
Treasurer: Robert L. Wilson, Dept. of Geology and Geography, University of Chattanooga, Chattanooga 37403  
Editor: Donald Caplenor, Tennessee Technical University, Box 186A, Cookeville 38501  
Director Reelfoot Lake Biological Station: Clinton L. Baker, Dept. of Biology, Southwestern at Memphis, Memphis 38112

AAAS REPRESENTATIVE: Clinton L. Baker, Dept. of Biology, Southwestern at Memphis, Memphis 38112

SECOND DELEGATE: None

SPONSOR OF JUNIOR ACADEMY: John H. Bailey, East Tennessee State University, Johnson City 37602

SPONSOR OF COLLEGIATE ACADEMY: Richard J. Raridon, Oak Ridge National Laboratory, Oak Ridge 37831

SECTIONS OF ACADEMY: Botany, Chemistry, Engineering, Geology-Geography, Mathematics, Medical Sciences, Physics-Astronomy, Science-Mathematics Teacher, and Zoology

MEMBERSHIP: 891 University and college professors, high school teachers and students. Also industrial, TVA, and ORNL

ANNUAL MEETINGS: 1966 meeting November 25 and 26 at East Tennessee State University, Johnson City; 1967 meeting November 17 and 18 at Tennessee Technological University, Cookeville.

## TENNESSEE ACADEMY OF SCIENCE (continued)

**PUBLICATIONS:** Journal of the Tennessee Academy of Science; Junior Academy Handbook and Transactions

**NAME AND ADDRESS OF INDIVIDUAL WHO SHOULD BE CONTACTED FOR A REPORT ON ACADEMY ACTIVITIES:** The Academy has no permanent secretary. Usually get this information from present secretary.

### ACTIVITIES

The Junior Academy has many active programs for high school students including an annual meeting wherein students submit written reports of their original research. The most outstanding papers are published in the Junior Academy Handbook and Transactions. The Junior Academy is sponsored by the Senior Academy and financially supported by the National Science Foundation and the Tennessee Department of Education. It is ably directed by Dr. John H. Bailey, East Tennessee State University, Johnson City.

The Senior Academy also sponsors other programs for the benefit of students in the state. The Visiting Scientists Program supported by the Academy and the National Science Foundation has had a successful year in bringing many prominent faculty in the state to many high schools. In 1966 it was directed by Professor Roger Rusk, University of Tennessee, Knoxville. In 1967 it is under the direction of Dr. A. Paul Wishart, University of Tennessee, Knoxville. A Westinghouse Science Talent Search program with a later-years-follow-up is an effort well directed by Mr. James L. Major, Clarksville High School, Clarksville, and Mr. Brian Delano, Tullahoma. Research project funds are available to students by support from the American Association for the Advancement of Science. The Academy also supports a collegiate division directed by Dr. Richard L. Raridon, Oak Ridge National Laboratory. Twice a year in the Spring and the Fall, college students have an opportunity to meet in a scientific atmosphere and present the results of their original research.

Once a year in November, the Academy holds its annual meeting. All scientists have an opportunity to meet in a congenial atmosphere and present the results of their research. Some of these scientists take advantage of the research opportunities available at the Reelfoot Biological Station which is supported by the Academy and directed by Dr. Clinton L. Baker, Southwestern at Memphis.

## TEXAS ACADEMY OF SCIENCE

1966

President: Robbin C. Anderson, Department of Chemistry, University of Texas, Austin 78712  
President Elect: Sidney O. Brown, Texas A&M University, College Station 77843  
Secretary-Treasurer: W. E. Norris, Jr., Biology Department, Southwestern Texas State College, San Marcos 78666  
Editor: Newsletter - Paul Westmeyer, University of Texas, Austin 78712  
Editor: Texas Journal of Science - Gerald G. Raun, P. O. Box 5015, North Texas Station, Denton 76203  
Vice Presidents: Paul D. Minton, Department of Statistics, SMU, Dallas  
Robert W. Higgins, Department of Chemistry, TWU, Denton  
C. L. McNulty, Jr., Dept. of Geology, U. of Texas, Arlington  
Orville Wyss, Dept. of Microbiology, U. of Texas, Austin  
David P. Butts, Science Ed. Center, U. of Texas, Austin  
W. Howard McCarley, Dept. of Biol., Austin College, Sherman

1967

President: Sidney O. Brown, Radiation Biology Laboratory, Texas Engineering Experiment Station, Texas A&M University, College Station  
President Elect: Don E. Edmondson, Department of Math., University of Texas, Austin 78712  
Secretary-Treasurer: Paul D. Minton, Department of Statistics, SMU, Dallas 75222  
Editor: Newsletter - David P. Butts, Science Ed. Center, U. of Texas, Austin 78712  
Editor: Texas Journal of Science - same as above  
Vice Presidents: W. T. Guy, Dept. of Math., U. of Texas, Austin 78712  
W. Norton Jones, Dept. of Chem., McMurry College, Abilene  
W. L. Russel, Dept. of Geology, Texas A&M, College Station  
Thomas P. Dooley, School of Arts & Sci., Prairie View A&M, Prairie View  
Morton King, Dept. of Sociology & Anthropology, SMU, Dallas  
F. R. Gehlbach, Dept. of Biology, Baylor U., Waco 76703  
Directors: Robbin Anderson, Dept. of Chem., U. of Texas, Austin  
Addison E. Lee, Science Education Center, U. of Texas, Austin  
W. E. Norris, Jr., Dept. of Biol., SWTSC, San Marcos 78666  
Wm. W. Matthews, III, Dept. of Geol., Lamar State College, Beaumont 77706  
Richard J. Baldauf, Dept. of Wildlife, Mgmt., Texas A&M University, College Station

AAAS REPRESENTATIVE: Dr. Addison E. Lee, Science Education Center, University of Texas, Austin 78712

SECOND DELEGATE TO ACADEMY CONFERENCE: None

SPONSOR OF JUNIOR ACADEMY: Dr. Fannie M. Hurst, Dept. of Biology, Baylor University, Waco 76703

## TEXAS ACADEMY OF SCIENCE (continued)

SPONSOR OF COLLEGIATE ACADEMY: Sister Joseph Marie Armer, Dept. of Biology, Incarnate Word College, San Antonio

SECTIONS OF ACADEMY: Mathematical Sciences - Mathematics, Statistics, Computer Science, Operations Research; Physical Sciences; Earth Sciences; Biological Sciences; Social Sciences; Environmental Sciences

MEMBERSHIP: 975

ANNUAL MEETINGS: March. 1968 Meeting will be at Lamar Technological College, Beaumont on March 15 and 16, 1968.

PUBLICATIONS: Texas Journal of Science; Newsletter; TASCA - Publication of Collegiate Academy

NAME AND ADDRESS OF INDIVIDUAL WHO SHOULD BE CONTACTED FOR A REPORT ON ACADEMY ACTIVITIES: It is regretted but due to the lack of financial support the Texas Academy cannot afford a permanent secretary. Therefore, contact should be made with the present secretary. Secretaries are elected for terms of two years.

### ACTIVITIES

The Texas Academy has supported the publication of the Texas Journal of Science which is one of the chief contributions of the Academy. The Texas Journal of Science publishes a high type of critical research articles. The Newsletter contains information of interest to the many scientists throughout the state. The Annual Meeting was held on March 16, 17 and 18, 1967 and no meeting was held during the calendar year of 1966 due to the fact that the meeting dates were shifted from December to March on a trial basis. The meeting in 1967 was held at Texas A&M University College Station and the 1968 meeting will be on the campus of Lamar Tech in Beaumont. Papers presented - 192 not counting the sessions of the Junior Academy and Collegiate Academy. Attendance - approximately 1,000.

Visiting scientists program - A NSF grant supports this program. In 1966-1967, 150 scientists made 170 visits to high schools through the end of March with more scheduled later.

The Academy has cooperated with various agencies on the conservation and wildlife refuge programs. Grants-in-aid to worthy high school students have been made. The Academy has sponsored the Science Education Board which deals with problems of science education at the secondary level.

The Texas Academy sponsors the Collegiate Academy and during the past year has had a grant from the NSF to make small allotments of funds under \$50 to worthy college students to carry out independent research and to attend the annual meeting of the Texas Academy of Science. The grant for attendance of college students at the annual meeting has been renewed.

The Junior Academy has been active and this year a grant from the NSF has enabled more students to attend the annual meeting.

## UTAH ACADEMY OF SCIENCES

1966

President: David E. Miller, History Department, University of Utah, Salt Lake City  
Vice President: John H. Gardner, Physics Department, Brigham Young University Provo  
Secretary-Treasurer: Max L. Carruth, Sociology Department, University of Utah, Salt Lake City  
Editor: Richard Y. Thurman, University of Utah Press, Salt Lake City  
Dello G. Dayton, Div. of Social Sciences, Weber State College, Ogden  
Leland H. Monson, Division of Humanities, Weber State College, Ogden  
David M. Grant, Chemistry Dept., University of Utah, Salt Lake City  
Earl Smart, Biology Department, Weber State College, Ogden  
Dean Christensen, Educational Administration, B.Y.U., Provo  
Milton C. Abrams, Librarian, Utah State University, Logan  
LaVar Sorensen, Salt Lake Board of Education, Salt Lake City

1967

President: John H. Gardner, Physics Dept., Brigham Young University, Provo  
Vice President: Eldon J. Gardner, Zoology Dept., Utah State University, Logan  
Secretary-Treasurer: Max L. Carruth, (Same as above)  
Editor: Richard Y. Thurman, University of Utah Press, Salt Lake City  
David E. Miller, History Dept., University of Utah, Salt Lake City  
Jack H. Adamson, English Dept., University of Utah, Salt Lake City  
Melvin C. Cannon, Chemistry Dept., Utah State University, Logan  
Dean Christensen, Education Administration, B.Y.U., Provo  
Milton C. Abrams, Librarian, Utah State University, Logan  
LaVar Sorensen, Salt Lake Board of Education, Salt Lake City  
Earl Smart, Biology Dept., Weber State College, Ogden

AAAS REPRESENTATIVE: Wilmer W. Tanner, Dept. of Zoology, B.Y.U., Provo

SECOND DELEGATE TO THE ACADEMY CONFERENCE: None

SPONSOR OF JUNIOR ACADEMY: LaVar Sorensen, Salt Lake Board of Education, Utah Academy of Sciences, Arts, and Letters, Salt Lake City

SPONSOR OF COLLEGIATE ACADEMY: None

SECTIONS OF ACADEMY: Arts and Letters, Physical Sciences, Biological Sciences, Social Sciences, Junior Academy

MEMBERSHIP: 645

ANNUAL MEETINGS: Fall - November 4, 1966, University of Utah, Salt Lake City  
Spring - April 21, 1967, Utah State University, Logan

## UTAH ACADEMY OF SCIENCES (continued)

PUBLICATIONS: Proceedings, Utah Academy of Sciences, Arts, and Letters,  
Volume 43, Parts I and II

NAME AND ADDRESS OF INDIVIDUAL WHO SHOULD BE CONTACTED FOR A  
REPORT ON ACADEMY ACTIVITIES: No Permanent Secretary

### ACTIVITIES

We held the usual two meetings during the year, a Fall and a Spring meeting. At the Spring meetings we honored four people: Two were members of the Academy to whom we awarded Distinguished Service Awards, and two were high school teachers in Utah who were awarded Meritorious Teaching Awards in the high schools. The Visiting Scientist Program has been conducted this year but will terminate at the end of the current school year, due to a decision of the National Science Foundation to discontinue funding the program. The Junior Academy has had a varied program: Including regional science fairs, participation in the international science fair, science reporting, mathematics contest, language fairs, science projects, consultation by scientists for secondary science projects, and a state science talent search.

## VIRGINIA ACADEMY OF SCIENCE

1966

President: Dr. Stanley B. Williams, Dept. of Psychology, College of William and Mary, Williamsburg 23185  
President Elect: Dr. James W. Cole, Jr., School of General Studies, Box 3697 University Station, Charlottesville 22903  
Secretary: Dr. D. Rae Carpenter, Jr., V.M.I. Physics Dept., Lexington 24450  
Treasurer: Maurice B. Rowe, Virginia Department of Agriculture, 203 N. Governor Street, Richmond 23219  
Executive Secretary-Treasurer: Rodney C. Berry, 5907 Brookfield Road, Richmond 23226

1967

President: Dr. James W. Cole, Jr., School of General Studies, Box 3697, University Station, Charlottesville 22903  
President Elect:

Secretary: Not available

Treasurer: Not available

Executive Secretary-Treasurer: Rodney C. Berry, 5907 Brookfield Road, Richmond 23226

AAAS REPRESENTATIVE: Rodney C. Berry, Executive Secretary-Treasurer, 5907 Brookfield Road, Richmond 23226

SECOND DELEGATE TO THE ACADEMY CONFERENCE: None selected yet

SPONSOR OF JUNIOR ACADEMY: Dr. E. L. Wisman, Director, Virginia Academy of Science, Department of Biochemistry & Nutrition, V.P.I., Blacksburg 24601

SPONSOR OF COLLEGIATE ACADEMY: None

SECTIONS OF ACADEMY: Agricultural Sciences, Astronomy, Mathematics and Physics, Microbiology, Biology, Chemistry, Materials Science, Space Science and Technology, Engineering, Geology, Medical Sciences, Psychology, Science Teachers, Statistics

MEMBERSHIP: 1602

ANNUAL MEETINGS: First Wednesday, Thursday, Friday and Saturday in May

PUBLICATIONS: Virginia Journal of Science (Quarterly); James River Basin-Past, Present and Future (Book - \$7.50, 844p.); Flora of Richmond and Vicinity, (Illustrated Bulletin, \$1.00, 350 p.); Exploring Virginia's Human Resources, (1965, Book - \$4.00, 185p.)

## VIRGINIA ACADEMY OF SCIENCE (continued)

NAME AND ADDRESS OF INDIVIDUAL WHO SHOULD BE CONTACTED FOR A REPORT ON ACADEMY ACTIVITIES: Virginia Academy of Science, Rodney C. Berry, Executive Secretary-Treasurer, 5907 Brookfield Road, Richmond 23227

### ACTIVITIES

The paid membership of the Virginia Academy of Science now exceeds 1600, an increase of 600 within the past four years. Our Junior Academy continues an active service to Virginia High Schools. Their annual meeting attracts 500 to 600 outstanding pupils and sponsors. Two are given trips to the AAAS Meetings and over \$1,500 in research grants are given to Juniors. Our Science Talent Search Committee was gratified to place two in the top forty Westinghouse winners last year.

A Visiting Scientists Program has been sponsored, with help from the NSF, for the past two years. This program has been very worthwhile and we hope to continue it on a limited basis.

The Senior and Junior Annual Meetings will be held in Norfolk in 1967, and an attendance of 1000 to 1200 is expected. The Seniors' program usually includes a symposium of current interest and most of these are reported in the Virginia Journal of Science. A recent symposium, "Exploring Virginia's Human Resources," was copyrighted and published by The University Press of Virginia, Charlottesville, Virginia.

The earnings from our Research Fund enable us to make several modest research grants each year. In 1966 we awarded \$2,540 to college teachers.

We are making reasonable progress on a history of the Virginia Academy.

We co-sponsored a Public Discussion on "The Exploding Population."

## WASHINGTON ACADEMY OF SCIENCES

1966

President: John K. Taylor, National Bureau of Standards, Room B326,  
Building 222, Washington, D. C. 20234  
President Elect: Dr. Heinz Specht, National Institutes of Health, OIR,  
Building 31, Room B-03, Bethesda, Maryland 20014  
Secretary: Mr. R. P. Farrow, National Canners Association, 1133 20th  
Street, Washington, D. C. 20036  
Treasurer: Dr. Richard K. Cook, Geo-Acoustics Group, ESSA, Washington  
Science Center, NW Building, Room 305, Rockville, Md. 20852

1967

President: Dr. Heinz Specht (address above)  
President Elect: Dr. Malcolm C. Henderson, 2900 29th Street, N. W.  
Washington, D. C. 20008  
Secretary: Richard P. Farrow (address above)  
Treasurer: Richard K. Cook (address above)

AAAS REPRESENTATIVE: Dr. Alphose F. Forziati, 9812 Dameron Drive, Silver  
Spring, Maryland 20902

SECOND DELEGATE TO ACADEMY CONFERENCE: not appointed

SPONSOR OF JUNIOR ACADEMY: Rev. Francis J. Heyden S. J., Georgetown  
University, Observatory, Washington, D. C. 20007

SPONSOR OF COLLEGIATE ACADEMY: not appointed

SECTIONS OF ACADEMY: not applicable

MEMBERSHIP: 1,309

ANNUAL MEETINGS: The 133rd Annual Meeting was held on December 27,  
1966

PUBLICATIONS: Journal of the Washington Academy of Science

NAME AND ADDRESS OF INDIVIDUAL WHO SHOULD BE CONTACTED FOR A  
REPORT ON ACADEMY ACTIVITIES: No Permanent Secretary

### ACTIVITIES

On December 31, the Academy rolls numbered 1,033 active fellows, 121  
active members, and 155 emeriti, for a total membership of 1,309.

Meetings: Chairman Ernest P. Gray and his associates on the Committee on  
Meetings provided speakers for the eight monthly programs. All but two of  
these were held at the Cosmos Club.

## WASHINGTON ACADEMY OF SCIENCE ACTIVITIES (continued)

The Academy also sponsored a special all-day meeting, held Saturday, May 7, at the University of Maryland. The morning session featured a symposium on oceanography organized by V. J. Linnenbom, with five speakers from Government and university research groups.

To celebrate the 500th meeting of the Washington Academy of Sciences a special program was arranged under the joint sponsorship of the Academy and the American Association for the Advancement of Science. The 500th meeting of the Academy was held on December 27 during the 133rd Annual Meeting of the AAAS in Washington, D. C. The speaker was Patrick M. S. Blackett, president of the Royal Society. An audience of about 900 at the Sheraton Park Hotel heard his discussion of the problems in narrowing "The Ever Widening Gap" in know-how between the developing nations and the highly industrialized countries. Many Academy members and guests met Professor Blackett at a reception following the meeting.

**New Affiliations:** The 1966 Board of Managers recommended, and the membership approved by ballot, the affiliation of three local scientific organizations. The National Capital Section of the Optical Society of America, the Washington Section of the American Society of Plant Physiologists, and the Washington Operations Research Council bring to 34 the total number of local scientific organizations affiliated with the Academy.

**Journal:** Volume 56 was published under the direction of Editor Samuel B. Detwiler, Jr., in nine issues totaling 232 pages. The Journal featured about ten articles in addition to its regular departments which provided a record of Academy activities, news of science in Washington, and a comprehensive calendar of meetings of affiliated organizations. The directory issue, appearing in September, records the Academy organization for 1966, its officers, managers, and committee chairmen, the officers of the affiliated societies, and a record of the professional connections and memberships of 1,276 members and fellows.

## WEST VIRGINIA ACADEMY OF SCIENCE

1966

President: Dr. M. H. Berry, West Liberty State College, West Liberty 26074  
President Elect: Dr. Harold Wilson, Department of Plant Pathology, Brooks Hall, West Virginia University, Morgantown 26506  
Past President: The Rev. Fr. Joseph Duke, S. J. Wheeling College, Wheeling 26003  
Secretary: Dr. James B. Hickman, 8 Mineral Industries Building, West Virginia University, Morgantown 26506  
Treasurer: Dr. Peter Popovich, Department of Chemistry, West Virginia University, Morgantown 26506

1967

President: Dr. Harold A. Wilson, see address above  
President Elect: Dr. James B. Hickman, Department of Chemistry, West Virginia University, Morgantown 26506  
Past President: Dr. M. H. Berry, see address above  
Secretary: The Rev. Fr. Joseph Duke, S. J., see address above  
Treasurer: Dr. Peter Popovich, see address above

AAAS REPRESENTATIVE: Dr. Gary E. Larson, Bethany College, Bethany 26032

SECOND DELEGATE TO ACADEMY CONFERENCE: Dr. M. H. Berry acted for Dr. Hickman.

SPONSOR OF JUNIOR ACADEMY: Dr. John B. Harley, M. D., 4097 Basic Sciences Building, Medical Center, West Virginia University, Morgantown

SPONSOR OF COLLEGIATE ACADEMY: The Rev. Fr. Joseph Duke, S. J., Wheeling College, Wheeling 26003

SECTIONS OF ACADEMY: Biology, History of Science, Social Science, Geology and Mining, Psychology and Education, Chemistry, Mathematics and Physics.

MEMBERSHIP: 450 - College teachers and students, high school teachers, some industrial scientists, physicians, and assorted "laymen."

ANNUAL MEETINGS: 1966 - Institute, W. Virginia, April 21, 22 and 23  
1967 - Morgantown, W. Virginia, April 13, 14 and 15.

PUBLICATIONS: Proceedings of the West Virginia Academy of Science - annually Volume 38 for 1966 appeared in February, 1967. Newsletter - quarterly

NAME AND ADDRESS OF INDIVIDUAL WHO SHOULD BE CONTACTED FOR A REPORT ON ACADEMY ACTIVITIES: None

## WEST VIRGINIA ACADEMY OF SCIENCE (continued)

### ACTIVITIES

The annual meeting at Institute featured presentations of more than 80 papers, of which 67 were deemed to be worth of publication, and were published in the 1966 Proceedings, a printed publication of 315 pages.

Awards in the form of scholarships, plaques, and certificates, were awarded to 24 outstanding high school participants in the Science Fair and "scientific paper" Junior Academy program. The scholarships were financed partly from Academy dues, and partly from contributions from interested educational institutions and industries.

The theme chosen by President-Elect Berry (who became President on July 11 for the 1966-67 Academy year) was conservation. The execution of this theme has resulted in one conference on the standardization (or at least establishment of minima for) of beginning college biology curricula, and in a planned symposium (open to the public) on conservation at the Annual meeting. While the actual conference and symposium took place (conference) and will take place (symposium) in 1967, much of the planning effort was executed in 1966. An outstanding panel of speakers representing Federal, State and local government, industry, and higher education will participate in the symposium, which is aimed at the level of interesting high school teachers and the general public in this problem rather than presentation of technical reports for those already versed in the field.

The Junior Academy Coordinator, Dr. Harley, has been very active in organizing and assisting in district science fairs throughout the state.

The Academy sponsored, to the apparent benefit of participant high schools, an N. S. F. grant for "Visiting Scientists" for high schools. The Academy much regrets the curtailment of this program, which was felt to be one of great benefit to the schools participating.

# WISCONSIN ACADEMY OF SCIENCES

1967

President: Dr. John W. Thomson, Department of Botany, Birge Hall, University of Wisconsin, Madison 53706

President Elect: Dr. Adolph A. Suppan, Dean, School of Fine Arts, University of Wisconsin, 3203 N. Downer Avenue, Milwaukee 53221

Secretary: Dr. Eunice R. Bonow, Department of Pharmacy, University of Wisconsin, 3203 N. Downer Avenue, Milwaukee 53211

Librarian: Prof. Jack A. Clarke, Library School, University of Wisconsin, Henry Mall, Madison 53706

## Vice Presidents:

Sciences - Prof. R. M. Darnell, Department of Zoology, Marquette University, 530 North 15th Street, Milwaukee 53233

Letters - Dr. Miller Upton, President, Beloit College, Beloit

Arts - Mrs. Mary Ellen Pagel, Department of Art, UW Center System, 1111 North Astor, Milwaukee 53202

Treasurer & Administrative Assistant: Jack R. Arndt, University of Wisconsin Extension Division, Room 614, 606 State Street, Madison 53706

## Editors:

Wisconsin Academy Review - Dr. Ruth L. Hine, 1909 Regent Street, Madison 53705

Wisconsin Academy Transactions - Dr. Walter F. Peterson, History Department, Lawrence University, Appleton 54912

## EXECUTIVE COMMITTEE MEETING

Academy Conference  
St. Louis, Missouri  
March 5, 1966

Council members present: James A. Rutledge, President; V. Elving Anderson, Vice President; Karlem Riess, Past President; Clinton Baker, Archivist; Wilmer W. Tanner, Secretary-Treasurer; and Raymond L. Taylor, representing the AAAS.

Minutes of the council meeting held at Berkeley, California (1965) were read and approved.

It was suggested that the AAAS be removed from the Cooperative Committee. The Academy Conference is now a cooperative agency between the AAAS and the Academies.

Dr. Taylor was asked to report on the proposed program for the December, 1966 meeting. Dr. Taylor said that the theme for the next AAAS meetings would be: "What have we done to our planet." Conservation is a really broad subject and should allow for considerable discussion.

When the meetings are held in Washington, D. C. we usually ask the President of the United States to address an AAAS assembly. We expect this to occur in 1966. The meetings will be headquartered at the Sheraton-Park Hotel and held in the Park-Sheraton, Shoreham and Washington Hilton. The latter is not more than a mile away.

It is proposed that Sheraton-Park be headquarters for our meetings. Dr. Karlem Riess is to handle the general arrangements for the 1966 Washington, D. C. meetings. He will receive the circular letter from the main AAAS offices and thus coordinate the meetings.

We must get our report to Dr. Taylor if it is to appear in Science. The secretary-treasurer is to assume the responsibility of getting information from the Junior Academy to Dr. Riess.

Before the evening dinner, cocktails will be served at 5:30, dinner at 6:00. The meeting is to be held on the same date; that is, the 27th of December.

### Junior Academy Activities

Keith Johnsen is to be contacted by Dr. Rutledge for the purpose of setting up the local committee which is to handle the activities for the Washington, D. C. meetings. Mr. Johnson is to handle the appointment of his aids. We must get top flight personnel in order to be assured of adequate arrangements.

The Business Meeting is to be held at 9 a.m. after the Council Meeting (Tuesday, 27). An informal luncheon to be scheduled after the morning meeting.

Perhaps we should prepare a statement for the new delegates to the Academy Conference. Dr. Baker has an old copy; perhaps this should be revised and sent out. Should we also write to the new presidents of academies and department heads, etc.?

We need a complete list of the officers of the local academies.

Dr. Baker agreed to work up a complete list of the officers of local academies. To start with, a list as it now exists is to be sent to Drs. Baker, Anderson, and Tanner from Ray Taylor's office.

It was suggested that a newsletter be prepared and sent to the officers of local academies. (No one assigned to prepare it).

#### Karlem Riess - Report

Dr. Riess suggested that this year we emphasize the physical sciences in our general meeting. It was suggested that we investigate involving the Harvard Project in Physics in the general program. The time is not known but an attempt will be made to coordinate them.

A discussion of Academy problems followed: What is the role of an Academy? How can it vitalize the activities on the local level?

It was proposed that we discuss in the morning meeting: What are the functions of a Senior Academy. It was also suggested that we consider the subject of "Public understanding." Publications and statements concerning an academy should be done by an outstanding editor. The question of how well known are the activities of local academies? Do important state and business officials know what we stand for and are doing?

#### To summarize the agenda:

9:00 a.m. One hour Business Meeting.

10:00 a.m. meeting. Ted Sherbourne to do or suggest someone who will key note the 10:00 a.m. general meeting. Then we should have someone from an Academy to point up needs and progress. Henry Eyring was suggested as a Key Noter.

2:00 p.m. meeting. Theme: "Should Academies be in the publication Business?" Have an exhibit of Academy publications. This to be done by Clinton Baker. Try for an attendance of many editors from all disciplines by inviting them to be present.

Send out a circular to Academy Editors to find out what each Academy is doing in publications.

If the publication program is properly done, then an article for Science can be prepared.

If possible we will co-sponsor with the Harvard Project program in Physics.

### Deadlines:

April 23 deadline for Ray Taylor on programs  
October 1 final deadline.

Dr. Baker suggested that Harry Bennett, past Secretary-Treasurer, clear up his business and then have his records audited by an individual of his choosing. He further suggested that hereafter the funds be transferred on the 31 December to the new treasurer as he assumes office, with the understanding that the new treasurer pay those unpaid bills incurred by the old treasurer.

### Three Standing Committees:

1. Collegiate Academy - appointment to be made after president consults Hopperton report.
2. Program Committee - Drs. Karlem Riess, Chairman; James A. Rutledge; and V. Elving Anderson.
3. Junior Academy Committee - William Scott, Chairman; Wilmer W. Tanner; and Robert Fite.

It was agreed that Dr. Hopperton should be given the opportunity to bring up to date a further report on the Junior and Collegiate Academies. These committees have been ignored in the past.

### Other Committees:

Nominating Committee: Drs. J. Teague Self, Clinton L. Baker, Karlem Riess.

History of Science Committee; Should it be continued? Dr. Karlem Riess and Dr. Clinton Baker are present members.

Committee for the Distinguished Service Award: Father Yancy and Dr. Clinton Baker are members.

Who should receive the Distinguished Service Award? Should it be a member of the Executive Council or others such as delegates from the academies to the Academy Conference?

What can the Academy Conference do to help AAAS? One way is to get more members. The more members we have, the more funds we get from the AAAS. We should strive for more AAAS members among our local academy memberships and also a better understanding between the local academies and AAAS. It was suggested that this can be done if the annual meeting minutes are prepared earlier and sent out to all attending delegates.

### Junior Academy Report:

Some last minute dropouts and additions have caused real problems in meeting the annual Junior Academy reporting program deadline. It was suggested that we move the deadline ahead. Some funds were left over to the extent of \$83.85 from the 1965 meetings. It was suggested that this

be given to the Academy Conference as a fund to be used for future Junior Academy activity.

The bill for phones, stamps, etc. will be taken from the Junior Academy funds before sending the balance to the Secretary-Treasurer.

We will need more money for lodging in Washington, D. C. than in Berkeley. Should we expect Junior Academy participants to double up in hotel rooms?

Send all requests to Raymond Taylor for letterhead to be used by new officers.

Moved by Clinton Baker that we adjourn, seconded by V. Elving Anderson. Approved and adjourned at 2:30 p.m.

## EXECUTIVE COMMITTEE MEETING

Coffee Shop, Shoreham Hotel  
Tuesday, December 27, 1966  
7:00 A. M.

Members present: James A. Rutledge, V. Elving Anderson, Wilmer W. Tanner, Clinton L. Baker, Karlem Riess.

Dr. James A. Rutledge, presiding, indicated that the following items should be considered for future meetings and for future planning. First, that before Dr. Raymond Taylor retires at the end of January, 1967, we should try to have our annual executive preparation meeting. It was suggested that we try for the weekends of January 14 or the 28th. It was further suggested that we permit Ray Taylor to make the final decision as to where the next executive meeting be held. It was suggested that it might be held in Washington, D. C., Columbus, Ohio, or Chicago, Illinois.

Second, it was suggested that we contact Mr. Neal Shedd of the U. S. Office of Education to see about the securing of funds for future operations and that Mr. Shedd be invited to attend the executive council luncheon on Wednesday, December 28.

Third, that Dr. John Melvin be invited to attend the Wednesday noon meeting.

Fourth, the Hopperton Report (which deals with a complete survey of the Junior Academy activities of the United States) was briefly reviewed. It was pointed out that the report might be brought up to date by Dr. Hopperton for approximately \$400. Further suggestion: that the AAAS will back a revised report if we feel that this is a worthy activity. A letter from Dr. Hopperton was read concerning the steps necessary to bring the report up to date.

Fifth, the Junior Academy Committee was reviewed and a letter of recommendations by Dr. Wisman was read and discussed. The problems facing the Academy Conference with reference to the selection of permanent secretaries for the various state academies was discussed. Fortunately, some of our local academies have permanent secretaries or directors and others have secretaries appointed for several years. It was suggested that we encourage all academies to appoint a secretary for several years and permanently if possible.

Sixth, copies of the forms sent out for directory information by the secretary to the local academies should also be sent to the executive officers. It is suggested that if possible, this be done before the January meeting. This would make it possible for the officers of the Academy Conference to be apprised of the various activities being carried forward by the secretary-treasurer.

Seventh, it will be necessary for us to call for the reports from the various officers and committees in the business meeting. Dr. Karlem Riess - nominations; Dr. V. Elving Anderson - report; Dr. Wilmer W. Tanner - secretary-treasurer report; and reports for information concerning the directory. Further reports to be given by Dr. Clinton Baker - archives; Dr. James A. Rutledge - presidential report; Dr. E. L. Wisman - Junior Academy. Dr. Clinton Baker is to aid the secretary-treasurer in securing reservations for the banquet for our next annual meeting. This is to be worked out conjointly between Drs. Baker and Tanner. It was also suggested that we expand the executive committee breakfast meeting next year. Dr. Howard Hausman, NSF, has expressed a desire to be with us at our business meeting and to talk collectively and individually with the various delegates.

Meeting adjourned at 8:45 A. M.

## GENERAL MEETING

Heritage Room, Shoreham Hotel  
December 27, 1966  
10:10 A. M.

Dr. James A. Rutledge presiding.

The theme and general subject of the meeting was introduced, The Role of State and Local Academies of Science in the Public Understanding of Science. Dr. E. G. Sherburne, Jr., director of the science service at Washington, D. C., was introduced. At the conclusion of Dr. Sherburne's talk, Dr. Henry Eyring, University of Utah, Dr. John H. Melvin, Ohio Academy of Science, and Dr. J. Teague Self, University of Oklahoma, discussed the program as outlined by Dr. Sherburne.

Dr. Henry Eyring gave the following remarks in response to the Sherburne discussion: We have a responsibility as academies to advise the National Science Foundation and other agencies of what we need to fulfill our obligation on the local level. Perhaps we need a speaker's bureau which would permit a coordination of those who go both locally and nationally to speak to the junior scientists. We should not allow the Visiting Science Program to die. This program has been very successful in Utah and therefore as an academy we need to know that such programs are being dropped in order that we may be in a position to advise those responsible for the programs. As academies we need to know about the shifting of funds. Three and a half billion dollars to the local school board is a huge amount. How can the academies use some of these funds? Actually, the local academies are now serving almost as national universities because of the Visiting Science funds and we should therefore recognize the important role thus played.

Dr. John H. Melvin expressed himself as follows: The local academies should recommend projects. As an example, in Ohio the geological mapping program was an academy project. We might institute a conservation project or a wilderness preservation project. In Ohio we get out an academy newspaper which goes to all science teachers in Ohio. We also sponsor a scholarship program, have been instrumental in initiating a style guide program for writing manuscripts in science. This has proved to be very successful in our secondary schools. We need a standard for judging and the local academy can be of great help in this area. A high school science workbook was financed by Ohio industry and prizes were given, awards to best students. In Ohio we are not letting the Visiting Science Program die. The National Science Foundation should not let it die either. Washington should come to us before deciding. At least 1/3 of our visiting science program is now underwritten by Ohio business, and we anticipate that the program will therefore go forward without NSF funds. We have attempted to stimulate interest in the Ohio Academy, and as a result, we now distribute 3600 copies of the Ohio Journal of Science per issue.

Dr. J. Teague Self indicated that in Oklahoma the academy officers interested in developing a greater public understanding of science have

pointed to those institutions and individuals who have had the most influence. After working in the area for some time it was decided that only 25 communities had enough interest to make it worthwhile to work with them. If we can get but one individual who will attempt to understand the things that are important in science, we can then make some progress in developing a better understanding in a community. One of our first problems in Oklahoma is the pollution of our streams. Many public officials and community leaders oftentimes refuse to admit the existence of stream pollution or for that matter, other undesirable conditions existing in the general area. We have a great problem in getting people to listen and to recognize the need for cleaning up our environment before we die in our own filth.

Following the remarks of the discussants, the general discussion resulted in some of the following remarks: Question - Why has the NSF abdicated or turned over to education or welfare the responsibility of the Visiting Science Program? Where are the representatives of NSF? Are they here? Dr. Rutledge indicated that perhaps Dr. Hausman could help us with these questions. In response, Dr. Hausman indicated that there is not an adequate budget to continue doing a quality job and therefore there had to be a shift and it was considered advisable to delete the Visiting Science Program and introduce funds into the school system in the hope that new rather than the same old things might be engaged in. He indicated that we are not out of business but that the suggestions for future programming must come from the academies.

Afternoon Meeting  
2:00 P.M.  
Heritage Room, Shoreham Hotel

The subject for consideration, Publications and Academies of Science. Dr. Elving Anderson presiding.

Dr. Robert E. Gordon, Department of Biology, University of Notre Dame, was introduced as the speaker. In setting the tone for his remarks, he indicated that he had been at Notre Dame for nine years, and during this time had been six years as editor of the *American Midland Naturalist* and five years as secretary of the Conference of Biological Editors. Dr. Gordon was particularly concerned about the publication of *Trivia* and suggested that academy proceedings and other publications put out by the local academies could be greatly improved by more careful editing by individuals in the various disciplines. A copy of his remarks is attached to these minutes and is as follows:

Drs. Gordon H. Bixler, Editor, Chemical and Engineering News, American Chemical Society, Washington, D. C.; R. Hobart Ellis, Jr., Editor, Physics Today, American Institute of Physics, New York; and Sylvia W. Rosen, Minnesota Academy of Science were the discussants. Their remarks are appended to the minutes. The discussants brought out two or three pertinent points. Basically the following questions and comments were made. What are the academies doing with our publications? Are they making certain that each issue represents a contribution? Statistics of pages published are available. What we now need is the statistics of who is reading the

material. There was a time when we waited for academy publications, but today it is a case of ease of publication and thus many publications which challenge the reader to select that which would be of greatest importance and interest to him. Commercialism has given a varied ability to a publication, but advertising sales should not be the only measure of worth to a publication. The academies could certainly give a local picture of the scientific fields in their area even if many of the major contributors, members of the local academy, publish their material in national journals. It was suggested that it may be very difficult to prove that our publications are better than those published under Communistic rule. Mrs. Rosen emphasized that she felt strongly that academies do have a role to play in publication. This was somewhat in contrast to the remarks made by Dr. Gordon. The idea of Publish or Perish was considered and the idea that one who does not publish gets no promotions or appointments. Mrs. Rosen was not of the opinion that all university professors should be expected to publish and that oftentimes those not interested in research and publication would do a better teaching job if the pressure of publication was not upon them. She further recommended that the publication of an article for a non-member nearly always results in the signing up of a new member. She further emphasized that once we worked our research alone but now we work in teams. Much more is read than we realize even though it may not represent the high powered research material. We should publish more indices and have a national distribution center to benefit the local academies. An abstract of publications of local academy members, perhaps in national journals, may aid in familiarizing the academy members over the country. Perhaps we can educate scientists that editors do know generally what we need to publish and what will be of value and aid to our local academies. It was further suggested that a minimum of two issues a year should be published so that the local academy members do not lose interest in the affairs of the academy. Actually, several issues per year might be helpful, particularly if author reprints are secured and sent out by the academies. The idea of multi-disciplinary symposia was suggested as a worthy project in local academies. The question was asked, should everything be published? The consensus seemed to be that many articles are published in Academy Proceedings or journals because no one else will publish them. Mrs. Rosen suggested in response to this that we do not have enough journals to publish everything. Therefore, local academies can serve best the needs of publication of local materials. In summary, it was felt that there well may be too many journals or proceedings with no editorial board, thus resulting in poor quality publications. It was further suggested that perhaps we should look into the possibility of providing a journal or a section in the proceedings to be used for the publication of high school materials. Meeting adjourned 4:00.

There was an average attendance of about 50.

#### Junior Academy

The Junior Academy reporting sections were held in the Heritage Room, December 28, at 9:00 A.M. Section 1, Dr. E. L. Wisman, Virginia Polytechnic Institute, presiding, and at 2:00 P.M., Section 2, Dr. Wilmer W. Tanner, Brigham Young University, presiding. Eighteen papers were

presented, covering various subjects in the physical and biological sciences. Section 1 was well attended. There were fewer in attendance during the afternoon section.

In the evening, 6:00 P.M., the Junior Academy participants and their sponsors attended a dinner at the Flagship Restaurant. This was a very delightful occasion and was under the supervision of Dr. Wisman, Chairman of the Junior Academy Committee.

## BUSINESS MEETING

Heritage Room, Shoreham Hotel  
Tuesday, December 27, 1966  
9:00 A. M.

Dr. James A. Rutledge, president and presiding.

Dr. V. Elving Anderson was introduced and read the first article of the constitution of the Academy Conference. He asked for suggestions as to how we might make the Academy Conference Directory better and how it might be more useful to the local academies. He also considered the question as to how we can make the Academy Conference and AAAS more helpful to each other. It seems obvious that the scientific climate in the United States is changing, and it was suggested that we must be prepared to adapt ourselves to an ever-changing environment.

### Secretary-treasurer Report

Dr. Tanner provided the assembled delegates with the attached treasurer's report, discussed it briefly and then discussed briefly the need for the local academies to submit their information to the secretary at an early date in order that the Academy Conference Directory might be prepared at a much earlier date than has been the case in the past. As a part of the discussion that followed, it was suggested that the AAAS send out two forms for officers, one of which is to be sent directly to the secretary-treasurer of the Academy Conference. It was moved and seconded that we accept the treasurer's report. Vote was unanimous in the affirmative.

### Collegiate Academies

Dr. James A. Rutledge reported on the collegiate academies, indicating the types now organized and somewhat of their function. The report was accepted.

### Junior Academy Report

Dr. E. L. Wisman read his report (attached). The following items were briefly discussed: 1) that we waive the \$5 registration fee for the participating Junior Academy members; 2) that we attempt to secure AAAS or NSF funds to assist in defraying the expenses of the Junior Academy participants; 3) that we make a determined effort to induce the civic clubs in the local areas to participate in sponsoring the local Junior Academy winners in order that they might participate in the national meeting; 4) that we consider a summer meeting for the Junior Academy participants primarily because it would allow us to work with the students during their vacation time in the summer and also during a time when travel is much less difficult than during the winter. It was moved and seconded that we accept the report as given without action.

### History Committee Report - Clinton L. Baker

Dr. Baker again reiterated his great desire that the local academies make a determined effort to write up their local academy histories. A survey of the academies gave the following statistics: that 13 academies have to date made no attempt to work up a history; that 4 have a history write-up in progress; and that 3 have already completed their report. As a part of the discussion, Dr. A. A. Linzey from the Indiana Academy indicated that they had completed a historical study and that a nice bound volume was now available for distribution.

### Guide Lines for Pre-service Professional Experience for Secondary School Science Teachers - T. Wayne Taylor

A report by Dr. T. Wayne Taylor concerned with the cooperative committee dealing with the community college and the junior colleges was the main concern of this year's convention for the purpose of considering ways and means of improving the preparation of science teachers. It was reported that the professional academic community needs the NSF program which has been a strong factor in emphasizing the significance of professional development in the teacher training program in the community colleges. Series of guide line suggestions were suggested which included history and philosophy, human development, learning, measurement and evaluation, teaching tactics, curriculum development, science in the curriculum, improving science instruction, and the teacher's commission. Further guide line suggestions that might be pertinent should be sent to Dr. Taylor at Michigan State University.

As a part of the discussion, Dr. J. Teague Self suggested that copies of the report presented by Dr. Wayne Taylor be sent to the congressional membership through the state and city academies. This was well accepted by the delegates and passed by vote.

### Committee on Nominations - Karlem Riess, Chairman

The nomination committee presented Dr. V. Elving Anderson as the new president, Dr. John H. Melvin as the president-elect, and Dr. Wilmer W. Tanner as secretary-treasurer. It was moved and seconded that we accept these nominations and was passed unanimously.

Dr. Anderson introduced the NSF personnel in attendance at the meeting. They were Dr. Hausman, Dr. Butler, and Dr. Kelsom. Dr. Kelsom was introduced and discussed briefly the role of NSF in public education and the Visiting Science Program. He emphasized that the Visiting Science Program had been discontinued but that this did not remove the National Science Foundation from the local academy programs. He emphasized the fact that they wished very much to have a direct communication with the state and city academies of science. As the discussion continued, he asked the question, "How can we get the most out of our dollars?" and indicated that the discontinuance was not arbitrary but was an attempt to call to the attention of the academies that the National Science Foundation needed to explore other areas which may produce greater results. However, if the academies of science find the Visiting Science Program to be the most

feasible and successful way of carrying forward the type of science promotion, then perhaps the Visiting Science Program or a modified version of it might be reinstated. He further indicated that last year only 80¢ per elementary teacher was available and suggested that actually the National Science Foundation program in this area has been only a plug which they have now pulled in the hope that fresh investigations will lead to better programs. In discussing the matter further, he suggested that we are looking for better ways than the past uses and that the National Science Foundation does not have enough money for all types of experimental purposes and that therefore, much of the available money for the next year will be placed in the hands of the school superintendents. Therefore, the local academies should devise ways and means of implementing their program through the local superintendants. It was further suggested that perhaps teacher institutes closed to elementary teachers but open to the secondary groups might be initiated through the superintendents. This may not require as much remodeling though some will be necessary. As a final statement, it was again reiterated that for 1967 the Visiting Science Program is out but that it may be reinstated at a future date if it seems desirable. However, this does not appear likely from the statements made.

Adjourned at 10:08 A.M.

THE ROLE OF THE STATE AND LOCAL ACADEMIES OF SCIENCE  
IN THE PUBLIC UNDERSTANDING OF SCIENCE

E. G. Sherburne, Jr.  
Director, Science Service

A speech to the Academy Conference  
at the Annual Meeting of the  
AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE  
Washington, D. C.

December 27, 1966

I am grateful to you to be invited to speak here today, for I want to talk to you about what I feel is an important opportunity for the State and Local Academies of Science to make a significant contribution toward improving the public understanding of science in this country.

I am not sure that Washington is an appropriate place for my talk, since I am going to be asking you to think in non-Washington terms. Too many of us here, and in the rest of the country, suffer from what might be called "nationalitis"--a disease that causes the afflicted person to define problems in such broad and all-inclusive terms that there is little relation to the real world of living breathing people at the local level.

In attacking the problem of improving the public understanding of science, "nationalitis" is harmful in that it can result in programs that are ineffective because they simply have no relevance to the lives of the persons at whom they are aimed. I would point out that communications research literature is full of examples of messages that were sent but which were never acted upon, because the intended recipients did not pay any attention. Why didn't they pay attention? Because the messages were irrelevant to their own interests.

I am going to hammer away today at the idea of "relevancy" and the fact that public understanding of science programs developed at the state and local level can have an important impact because they will be more relevant. You will see more clearly what I mean if I start out by giving you a definition of the phrase "public understanding of science."

"Public" is the adult population of this country, roughly 125,000,000 people, who can be grouped into a variety of subpublics of

different sizes and compositions: men, women, Democrats, lawyers, voters, purchasers of medicine, people with TB who don't know they have it, readers of large newspapers, plumbers, mayors of small towns, conservationists, and so on.

"Science" is the body of scientific knowledge, which has been estimated as the equivalent of some 10,000,000 books on science and its applications in engineering, medicine and agriculture. This body is increasing, incidentally, at a rate equivalent to about 1,000,000 books per year, which would mean that over 200 book equivalents will have been added during our session today.

The "understanding" that we want our public to have of science is that which is sufficient to achieve some purpose, the purpose usually carrying with it the implication of some behavior--voting, appreciating science, getting a chest X-ray, and so on.

Obviously, telling somebody to get the contents of 10,000,000 books into the minds of 125,000,000 people so as to produce a variety of behavior is not the best way to get a public understanding of science program started. And it is here that many people flounder. They all have a mystic belief in the need for better public understanding of science, but they just can't come to grips with what they should do.

The need, of course, is to focus down, and the first step to take is to face up squarely to the question, "Why do we want the public to have a better understanding of science?"

In other words, should the aim be to get the public to support more expenditures in basic research; to get parents to encourage their gifted children to choose science as a career; to get the public to learn about the science that the scientist thinks is important or beautiful?

Or should understanding aim to provide the members of the public with information so that they can better make up their minds on their own; or to give these individuals information on problems which they think are important (even though we do not) because the problems are their own; or to teach them to question the answers, even of scientists?

Obviously, both kinds of understanding are important. At a time when familiarity with science is not very extensive, it is important for the scientist to be an advocate for those things affecting science which he believes are important, not just to him, but to the country.

But I believe that the scientist has another obligation as well, arising from the fact that he is a citizen with specialized knowledge which other citizens do not have. In this role, he should decide on what he communicates from the point of view of the public, and not that of the scientific community.

Public understanding of science, to me, means this second kind of communication, from the point of view of the public. It is interesting to note that this is a question which has come up in relation to other areas as well. W. Philips Davison, in his book on international political communication comments: "To achieve a more realistic understanding of the capabilities of communication means abandoning some commonly held preconceptions. We usually think of information or propaganda programs primarily as instruments of persuasion, although this is only one of their functions and not necessarily the major one. They are often more important as a means to tell people how to do things they want to do already. . ."

Giving the public the information which it finds interesting or relevant is therefore important for pragmatic as well as philosophical reasons, in that such communication will have better attention and therefore achieve greater effectiveness.

If we can agree that public understanding of science should be directed toward providing information the public thinks is important, how can we further focus down on just what it is we ought to be communicating?

Here again, relevance is still the key word. Relevance implies a traceable, significant, logical connection between scientific information and individual behavior. We can see a connection between scientific information and behavior if we examine the four roles which all members of the adult public play at some time or other: citizen, worker, consumer, and individual. As citizens, they vote or organize to exercise influence at a local, state or national level. As workers, they labor in offices, factories, laboratories, or homes. As consumers, they purchase such goods as automobiles or food, and services from hospitals or airlines. As individuals, they try and cope with a rapidly changing and frequently incomprehensible world. And now let's consider how science is relevant to each of these roles.

The proper functioning of a democracy requires that the citizen

should be able to participate intelligently in the decision-making process. While he may not be able to participate directly in the formulation of policy, he should have the information which will help him to choose among alternatives. And while he may not be as qualified as the experts who recommend policy, he should have enough background to be able to judge their ability and the recommendations which they make.

Today much of the information which the citizen needs is scientific or science-related, and so an understanding of science is important to a wide range of questions from how to deal with air and water pollution today to what the implications of genetic counseling or battery-powered automobiles are for tomorrow.

It is also important for the citizen to know something about science so he can exercise some influence on the support of science. Here the question is no longer whether science will receive support, but rather which areas of scientific endeavor will receive how much support: molecular biology versus particle physics, or geology of the moon versus geology of the ocean bottom.

A person also needs an understanding of science that will help him survive in the face of rapid technical changes in career requirements. We have already seen the beginning of the end of such different jobs as elevator operators and flight engineers. The rapid increase in scientific knowledge, and increased efforts to reduce the lag between scientific discovery and application are going to make for even more severe pressures of technological obsolescence in jobs. The professional and the laborer both are going to need more help in keeping up, in learning the science that will help them to keep their job, or if their job is disappearing, in learning science which will help them to get a new job.

An understanding of science is also becoming increasingly important for the consumer. New kinds of products and old products made with new materials are appearing in incredible profusion. The consumer must have a better understanding of what alternatives are before him, and what are the alternative consequences of use.

Consumer education with a strong science element is going to become more and more important as new products continue to proliferate. A recent study done at the University of Wisconsin indicated that a number

of housewives tested did not understand some of the key words used on the instruction labels on insecticide cans. Even granted that the labels could be improved there is undoubtedly a great deal of room for improvement also in the scientific understanding of these housewives of the chemistry of insecticides and the biology of the insects for which they were designed. This may seem a bit unromantic to most of you, but it would be of a great deal more interest to most housewives than a lecture about the inside of an atom because it is relevant to their concerns.

The proliferation of new knowledge has also had a tremendous impact on the inner and outer world of the individual, changing old ways of doing things and changing old ways of looking at oneself. Copernicus showed that our world was not the center of the universe; biology and geology changed Biblical ideas about the origin of man and of the world; Freud taught us that we were not completely rational beings; recent developments in computers are resulting in machines that are not only stronger and more adept than man, but that can think better and faster; and now science is talking about creating life. Some improved understanding of science would undoubtedly contribute to a better adjustment on the part of the individual, not just to the changes which can be expected to appear with increasing frequency.

What is being done to improve the understanding of science of the citizen, worker, consumer, and individual?

One of the most commonly cited activities is the effort that is being made to improve the science curricula in the schools. Here, say scientists and educators, we are training the adults of the future, and are giving them the kind of science understanding that their parents lack. We may have to wait a few years for today's children to grow up, but in essence, the problem is licked.

This is in my opinion a dangerous and fallacious argument. In the first place, only a small proportion of students take enough science in high school and college to prepare them for the world of tomorrow. And even more important, scientific knowledge is increasing so rapidly that much of what a person needs to understand as an adult is not even in existence at the time he is in school. And one can't learn ideas that don't exist.

We must face up to the fact that the only solution is to continue to learn as adults in order to keep abreast of the new scientific information that is being generated, as well as to fill in the gaps of the educational background we already have. Since most adults have major commitments of time to work and to the home, we need to develop means of providing the information they need through something other than traditional formal education.

On a national basis, we are making important strides toward improving the situation. We have a Science Advisor for the President, a President's Science Advisory Committee, studies and reports being done for the Federal Government by the National Academy of Sciences, science seminars for Congressmen and for Congressional staffs, science seminars for newspaper and magazine writers and broadcasters on topics of national interest, national TV programs on science, books that are distributed nationally, and so on.

We might have some reasons for optimism if we could mention comparable developments based on needs devised on a state or local level. But so far, only a few pioneering efforts have been carried out. This is despite the fact that while problems may be national, their impact is not.

Water pollution is in Lake Erie or the Hudson River, not in the lakes and rivers of the United States. Technological unemployment is for the flight engineer in Los Angeles or the accountant in Chicago, not just for a percent of the population. The rain or hail which might have been caused by cloud seeding falls on apple orchards or wheat fields in Maryland or Colorado.

We need to help the individuals and communities that are concerned about these and other problems, not in terms of generalities, but in terms of specific information geared to use in their particular situation. This means attacking the public understanding of science on a local, not just a national basis, and in terms meaningful to the interests of citizens, workers, consumers, and individuals.

Here are some specific suggestions as to the kinds of things that I feel could be done for key groups, and I am sure that you can think of many more out of your knowledge of your own communities.

First, let's look at the leadership group -- the governors, state legislators, mayors, boards of aldermen, county councils, bank

presidents, presidents of industries, school superintendents, church leaders, and so on.

A study done in Syracuse, New York, showed that about 0.2% of the population of the city was involved in making all of the important decisions affecting the community over a period of several years. If you can reach the comparable 0.2% in your State or City, and increase their understanding of science related to the kinds of problems they face, you will have made a major contribution.

Specifically, what could you do? You could encourage, if you have not already done so, the appointment of a Science Advisor to the Governor of your state, and a G-SAC, a Governor's Science Advisory Committee. The Science Advisor idea has worked well at the national level as well as in some states, and there is every reason to believe that it would be equally important elsewhere at the state level, or even in large cities.

You could conduct science seminars on relevant topics for members of state legislatures or county councils. While I was with the AAAS, I was responsible for the program for Congressmen and for Congressional staffs, and because of our philosophy was a key element in any success we had, I should like to describe it to you briefly.

The aim of the seminars was to provide a small group of Congressmen or Congressional staff members with an opportunity to learn something about an important area of developing scientific knowledge. We tried to pick topics which had some relevance (seismology, for example, had implications for detection of underground nuclear explosions and for earthquake prediction) but kept them as nonpolitical as possible, specifically excluding anything that directly involved impending legislation or appropriation. I would strongly urge that any programs which you develop should have a similar nonpolitical basis, for the need is not for advocacy, but for a presentation of all aspects relating to a particular topic.

Here are some other national level programs which might serve as models. The National Academy of Sciences provides studies for Congress or various Federal Agencies. You might be able to do the same for states or cities. The Royal Society in England has run courses on science for career civil service personnel. You might do the same for state or local

employees. A symposium on "Science and the Stockmarket" was run in London for security analysts and others interested in investment. You might do the same, or run comparable symposia on relevant topics for other business leaders in your community.

Now let's look at another important group -- the so-called "attentive public," which is made up of the largely college-educated persons who are active in community and state affairs, not just politics, but in all areas. These are the persons who influence decisions, in that they are the reference group for the leaders.

I would first like to suggest the organization of a Speakers Bureau, which would provide scientists to talk to clubs, associations, and other groups. You may think this is being done, and in some places it may be. But my impression, and that of people I have talked to, is that the country is full of program chairmen of a wide variety of organizations -- from Rotary to PTA -- who are looking for good speakers on interesting (to them) topics. They don't use many scientists, either because they don't know where to go or what to ask for, or because they don't think it would do any good to ask.

There is a particular advantage in working with organized groups, one which the British Association for the Advancement of Science feels is particularly important. The British Association, which has a huge speakers program, uses organized groups almost entirely (as opposed to hiring a hall and trying to fill it) because the organized group delivers, as they put it, a "captive audience." The BA lecture people never have to worry about whether there will be an audience.

There is, of course, the problem that if a speakers bureau really became popular, it might be difficult to find scientists to handle all the demands. But even if you are successful enough to encounter this problem, there is another and yet untapped source of speakers. At Science Service, we see thousands of attractive young people who are intelligent and quite capable, given the opportunity to prepare, of speaking on various scientific topics. Why not organize a Youth Corps of science speakers?

Another type of communications activity which has not yet been properly utilized is the 16mm motion picture. While I was at the AAAS, I used to receive a number of letters from organizations that wished to

start science film programs. Their problem was that they did not know what films to select, nor where to obtain them.

Those of you who know anything about 16mm film know that there is no simple answer to such queries. For them to do the job, they would have to obtain about fifty film catalogues, select the films almost blind, send for preview prints, and spend hours viewing and evaluating films. Of the films they might see, they could expect 10 to 20% to meet their needs. Obviously, most organizations don't have the time or staff to undertake such a task.

The individual Academies could make an important contribution in working up lists of films appropriate for local needs, and if there were sufficient interest on the part of the Academies, they might consider asking the AAAS to organize an evaluation program to take some of the load off the local people.

I would like now to discuss another important means of reaching the attentive public, one in which many Academies are already involved. You will recall that several years ago, the AAAS was asked to look into Science Youth Activities in the nation. One of the conclusions which interested the Committee given the job was that Science Fairs seem to be important not only in instructing young people, but in uniting the community and educating the lay public in science.

The Science Fair movement is large and well established, and so the question here concerns improving rather than initiating a program. I am sure that some of you have been critical about the way some Science Fairs have been run -- of the judging, of excessive competition, or of the requirements for Science Fair projects as a part of course work.

These are all things which we need to work on in order to improve the science learning of young people, as well as to provide a better understanding of science to the public. Science Service will do its part in this, but we can't do it alone. The Science Fair is made at the local level, particularly through its advisors and judges. If we are to tap the still undeveloped potential of many Science Fairs around the nation, we are going to need your participation.

There is one more target audience with which I feel the Academies should be concerned. This is the mass media, or more particularly, the persons who write for newspapers or produce for television or radio. Here

again there is a remarkable opportunity, for if you observe newspapers or television or radio, you will see that most of the science reported is "national" science, and has little direct relation to the local scene. I should like to see what could be done to increase the local coverage of science.

At the present time, the Council for the Advancement of Science Writing is probably doing the most effective work in this area. It has an on-the-job training program for reporters or broadcasters who want to learn something about science writing. They receive materials and help from the CASW, and in addition, a qualified science writer is training a number of persons in smaller cities.

A second excellent program has just been undertaken by the CASW in a number of states in collaboration with universities. Scientists will be brought together with editors, writers, and broadcasters to have dinner and a discussion about some interesting aspect of science.

Academies of Science could do several things to supplement these types of activities. The Academies could, for instance, locate scientists who would be willing to act as sources of information for writers or broadcasters. In many cases, media people do not have the necessary contacts to enable them to crosscheck on science stories, or to seek for additional information. Lists of such sources would be most helpful.

You might also wish to organize science seminars on topics of interest which are science-related in order to improve the background of media persons, and to introduce them to scientists who might later on help as sources of information. I need not say that the topics of such seminars should have local relevance, and not just be on lasers or DNA just because that is what is being talked about in scientific circles at the time.

Every year or so, I would suggest having the Academies present a "Report on the Status of Science" in a state or city. Such a topic might be the theme for a symposium, which could have papers examining progress and needs in science and technology for the area. I am sure it would be of great interest to the media as well as to leadership groups and the attentive public.

I have suggested a large number of possible activities which Academies might undertake, and of course, almost all of these will require financial support.

I do not have any simple and ready-made answers on this subject to give to you, but I firmly believe that it will be possible to raise funds for worthwhile state and local activities. Here are some suggestions as to possible financial resources.

The first and most obvious source is the private foundation. In addition to the usual big ones, may I call to your attention the large number of smaller foundations (and some not so small) which support state or local activities almost exclusively. So an investigation of the situation locally may turn out to be much more useful to you than simply trying to raise money from the more traditional sources.

There is a Public Understanding of Science program supported by the National Science Foundation, aimed at "developing and testing mechanisms which will lead to a greater public understanding of the nature of science and its relationship to daily living." Many of the activities which I have suggested could conceivably be supported under this program, although its total funds are pitifully small. You might be interested to know, incidentally, that to date, no state or local Academy has received a grant under this program.

Another Federal program is that under the Office of State Technical Services in the Department of Commerce. It is aimed at "promoting commerce and encouraging economic growth" of states. It has several million dollars per year, which it grants on a 50% matching basis. Some of the activities which I have suggested would certainly fall under this program.

Lastly, I would like to suggest that State and Local Academies, acting together, might be able to exert a strong influence on the development of support for public understanding of science. I am sure that most foundation or government executives would be interested to hear of the possibility of a program which could be undertaken by such a widely representative group as yours. So if the money isn't there, I think that you can go out and make it available.

One word on the activities of other organizations, and on the question of collaboration or competition. There are, of course, a number of groups which are already carrying on activities, local or statewide. Included are the local sections of societies, the Office of State Technical

Services, the Scientists Institute for Public Information, universities, museums, Sigma Xi, the Council for the Advancement of Science Writing, and many others.

If there is any problem of coordinating local activities, I should like to suggest to you the solution used by the British Association for the Advancement of Science. It has been instrumental in forming what are called "Area Committees," which are made up of representatives of interested organizations from a particular area. These Committees meet and decide which group will take the responsibility for which activities. Actually, the formation of such Area Committees by the Academies might in itself be an important contribution toward more effective action on a state and local basis.

In closing, let me say that I see a tremendous opportunity for you to contribute to the public understanding of science, and I hope you will consider some of my suggestions. But before you do, may I urge you to identify relevant needs at the state and local level -- for leadership groups, for the attentive public, and for mass media staffs, and in terms of interest to people in their roles of citizens, workers, consumers, and individuals.

I am reminded of the oriental fable about the monkey and the fish. "Once upon a time a monkey and a fish were caught up in a great flood. The monkey, agile and experienced, had the good fortune to scramble up a tree to safety. As he looked down into the raging waters, he saw a fish struggling against the swift current. Filled with a humanitarian desire to help his less fortunate fellow, he reached down and scooped up the fish from the water. To the monkey's surprise, the fish was not very grateful for this aid."

I think we all have the humanitarian desire. What needs attention now is the viewpoint of the fish.

## The Role of Academies of Science in the Field of Scientific Publications

(Introduction to a Panel Discussion - AAAS, Washington, 1966)

Robert E. Gordon  
University of Notre Dame  
Secretary, Council of Biology Editors, Inc.

### Introduction

In accepting President Reiss's invitation to address the conference on the role of academies in scientific publication, I had certain initial misgivings. These were not allayed by his second statement namely, that my brief talk would serve as an introduction for a panel discussion. When I learned the identity of my fellow panelists, I was reminded of the man who survived the Johnstown Flood and never ceased to talk about it in elaborate detail. When he died and passed through the Pearly Gates, St. Peter told him that each entrant was granted a special wish. The Johnstownian immediately asked for an audience to which he might relate this experience. In a short time, a crowd was gathered. As the man moved toward the podium, St. Peter whispered this admonition to him, "Before you start, I think you ought to know that Noah is in the crowd."

The biblical concept of the Ark presents many problems. The size and complexity of the menagerie described requires many more keepers than were available to Noah. The menagerie of the Ark of Modern Scientific Communication is just as diverse. And if we are to survive the modern counterpart of the Biblical story - the flood of scientific information - there must be many informed keepers; and each section of the vessel must be well organized and managed.

Thus with the forbearance of the Noah's on the panel and in the audience, I propose to introduce the discussion of the role of academies in scientific publication by briefly examining the population, its image and practice, and the role as it might exist.

### The Population

I do not believe that much would be gained by a dry recital of vital statistics regarding academy publications, but it is interesting, and

I think essential to our discussion, to note the extent and heterogeneity of the population.

The sample that I have examined consists of 42 out of 47 or 48 academies that are members of the Academy Conference. The data are taken mainly from the 1964 Directory and Proceedings of the Conference. My best estimate is that there are some 6 or 8 additional academies not represented for one reason or another. This latter group includes, however, one academy organization whose publications are so numerous and usually of such exceptional high quality that it is actually too far out of our ballpark for discussion today. I refer to the New York Academy, a city organization with an international membership. But even the exclusion of this organization plus the others, leave ample variance in the sample.

Forty of the 42 academies covered in the report publish something. The publication activities vary from the production of an occasional miscellaneous item by one academy to the publication of a quarterly, an irregular memoirs series, a newsletter and miscellaneous items for consumption by the general public by another. At least two of the member academies are engaged in the production of scientific films, and T-V programs.

The data are summarized in Table I. As I have indicated, a variety of items are published; these fall into three types: newsletters, miscellaneous publications and scientific periodicals of varied frequency.

Only two academies publish one or more of all three types; 15 others publish a scientific periodical plus one other type (for 8, this is a newsletter; for 7, it is a miscellaneous publication).

A total of 37 of the 41 reporting publish a scientific periodical. The frequency is variable as indicated, but one-third publish on a quarterly basis. Of the 37 periodicals, 29 are listed as being abstracted by the two major U. S. Services: Chemical Abstracts and Biological Abstracts. Regardless of what may be said about the value of the contents, the material from those journals showing any degree of regularity - even to the point of being consistent in their irregularity - is being included in the information system.

Interestingly, only one academy reports no publication in any form.

Scientists are a peculiar group - they show great concern with the accuracy of a given measurement to the fifth decimal place, but are relatively insensitive to problems regarding the economics of publishing this datum.

Thus while there is a fair correlation between the extent of publication activities and the dollar support, as indicated by memberships, it is to be noted that 8 of the 13 academies publishing quarterly have a total membership of 1000 or less.

Now the fact is that as heterogeneous as this population may appear, it does not differ markedly from my general impression of biological organizations at the national level with regard to publication activities.

Why then should we address ourselves to the question of the role of academies in scientific publication? The answer seems to me to lie in part with the function of the academy in the era of Big Science and with its image.

At the 1964 Conference meeting in Montreal, J. Teague Self in a general evaluation of the academies, pointed out that their publications vary from excellent to poor. He stated, "The status of the State Academy Proceedings in many cases is such that reputable scientists will not publish in them, and they have little real value to librarians."

This general image is not improved when one sees even skimpy statistics concerning editorial policy. Twenty-three academies designate both an editor and an editorial board and every paper is refereed. Seven indicate an editor only; one publishes without editorial scrutiny. But note that less than half of the academies - 17 out of 40 who report a publication of some kind - named the editor among the officers listed and there are numerous officers listed.

Is this indicative of the general regard that Academy executive boards have for the office of the editor?

The question as to whether the academies as a group take seriously their publication activities is a legitimate one. Is the selection of the editor a seriously thought out decision, or do the individual executive boards simply look for a willing soul? Dedication is no substitute for scholarship of "know how." How many willing souls know, as any good editor knows, that one cannot sit back and expect good manuscripts

to roll in, even if you are editor of a prestigious national periodical? The job of an editor is not just one of dotting i's and crossing t's; he can drastically modify the image of a journal, and through his activities the image of the organization. Regardless of the nature and quality of manuscripts submitted, no improvement can be expected unless a well qualified individual is selected.

And what of editorial boards and the referee system? Is it not most illogical for an organization that is admittedly interdisciplinary to expect one man to review and provide constructive criticism to all fields of science in an era when specialization is the rage? Editorial boards for any broad spectrum publication - even within one field - are not luxuries; they are mandatory.

The very essence of science - criticism of one's peers - is the issue when boards or referees are discussed.

This brief consideration of the office of the editor and the matter of refereeing suggests my belief that academies do have a role in scientific publication. But what is it? Here again, the image is poor and some facts fairly obvious.

#### The Role

Prof. E. Ruffin Jones in his 1962 Presidential address to the Conference noted the historical change in the behavior of scientists and the evolution of a competitive interaction between the State academy and the more specialized national society. In his words, "...participation in national meetings became a basic component of the publish or perish philosophy." And further, "...the importance of the Academies' role as a forum for the presentation of major research papers was sharply reduced."

A simple inquiry to several of your colleagues at this meeting as to their thoughts on the function of academy publications will bring a wide variety of reaction - most of it negative. Further, they will immediately respond in terms of original scientific contributions.

Since April I have raised this question informally with scientists having residence in 22 states. There is a correlation of response with field of respondent.

If the respondent is a physical scientist or in an interdisciplinary area between biology and the physical sciences, but not geology, he is inclined to believe that these publications - once serving a useful role - are now passe in the age of big science as media for original scientific contributions.

If he is a geologist or biologist of the non-molecular type, he repeatedly stresses the need for detailed distributional data on structural and physiographic features, or on the biota - both extant and extinct. This is the kind of provincial information required to flesh out the bones of sweeping ecological or biogeographical generalities, or to fill in the blanks on soil, physiographic and structural maps of use to a number of fields.

A recent study of periodical literature in the field of ecology bears on this point (Anderson, 1966). Anderson was basically interested in knowing what journals he should recommend to build a strong library in the field of ecology. He examined the literature citations over a two year period in the Journal of Ecology and the Ecological Society's periodical, Ecology. He ranked the journals to which the citations referred in terms of frequency of citation to a given journal.

Eighty percent of the 4160 citations tabulated came from 200 journals with a minimum frequency of 4 citations per journal. Thirteen of the 200 were academy publications in the United States. Four of the 13 were ranked in the first 78 periodicals with a minimum frequency of 10 citations each.

At least for some scientists who publish in national journals, there are significant original contributions in the academy publications. But I think few individuals would deny that the importance of the average academy publication as a medium for original research in all fields is now relatively slight.

If in fact the academy is no longer serving as a major forum for original research in all fields what is it doing? Is this activity, whatever it might be, reflected in the publication policies of the Academy? If I may be permitted an analogy to rank commercialism, have we modernized the entire plant, but neglected to alert our advertizing - or perhaps the word is sales - department to the new activities and new products?

What are often cited as weaknesses of the academies may on further examination turn out to be their most valuable assets. Scientific communication in the 1960's embraces not only communication within the scientific community but also communication between the scientific community and the public. The provincialism, said to be a major liability, is in this latter situation a major asset. What other organizations are in a better position to communicate scientific attitudes on major problems - both national and local - to the "attentive public"?

The interdisciplinary nature of the academy is often contrasted sharply with the specialization of the national organization. What other organizations are in a better position to examine the many complexities of the major problems facing the populations of which they are a part?

The reemphasis on education, especially the stimulation of science in education which characterizes the academy of the later 1950's and 1960's carries with it superb opportunities to contribute to the educational complex of the state. Granted that active research scientists do participate in annual national meetings, the fact is that not all, or even a significant percentage, do attend. For example, the American Chemical Society claims about 100,000 members. With two meetings a year, assuming 25 percent overlap in attendance, only about 17 percent of the membership are present at one or both of the meetings. For the AAAS, with a membership of approximately 90,000 annual attendance by members is on the order of about 5 to 6 percent, counting all tombstones available. In the several specialized organizations of which I am a member, I believe a 10 percent attendance by the membership is a generous estimate.

I doubt that the average individual engaged in science and higher education attends more than one national meeting a year. Thus a state academy meeting offers an unexcelled opportunity to synthesize and report on papers given at this or that specialized national meeting for the benefit of the others who attended a different specialized meeting. The modern attempts to unify science through interdisciplinary approaches place a high premium on communication between specialists.

Communication from mature scientists to neophytes has its best opportunity at the Academy meeting and through the academy publications. In the past few years, an increased need for review articles has been

emphasized and several different plans to stimulate their appearance and publication have been proposed. What effort has or is being made to stimulate the production of reviews as teaching tools by academy members?

Here I am not thinking of the critical review in the sense of a communication from specialist to other specialist. Face this fact squarely. Only a very small percentage of the scientific community is operating at the frontier. A much larger percentage are, if you will, middlemen in the process of scientific advance and learning. The type of review I call for attempts to assay the current research activities and select those that are really relevant to materials presented by this vast group of middlemen.

Now the relevant question is this:

Is the present-day Academy publication policy on this matter still reflective of the days when the instructions to authors stated that only original contributions would be published?

Lastly, while the general role of the Academy has moved from its pre-1940 monotypic function as a major forum for the discussion of original research in all fields to a mid-1960 polytypic function perhaps best summed up in the words - educational catalyst - I strongly suspect that the publication practices of the majority, through neglect, still attempt to reflect the pre-1940 picture. A reconciliation of these aspects in those organizations where it is needed, would not only serve to enhance the publication activities and image of the Academy, but also contribute in very substantial way to the resolution of major problems facing the whole scientific community.

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TABLE I

Status of Publication Activities - Members of the Academy Conference  
(Data from 1964 Directory and Proceedings, Academy Conference)

Scientific Publication	Abstracted*	Newsletter	Misc. Publ.**	Avg. Membership (Extremes)
Quarterly+	13	4	5	1216 (360-3913)
Triennial	1	0	1	1284
Biennial	5	1	0	488 (204-775)
Annual	9	4	3	642 (150-1887)
Irregular	4	1	0	340 (275-400)
Freq. Unkn.	5	2	1	455 (238-712)
Subtotal	37			
None	4***	1	2	849 (200-1775)
No report	1			325
Total	42	29	13	13

\* Of the 29 abstracted, 21 are covered by both CA and BA; 24 by the former and 25 by the latter.

\*\* Directed toward the general public (2), Scientific (8) or education (3) activities.

\*\*\* One academy reports no publication in any form.

## ACADEMY CONFERENCE

The Academy Conference is an organization of all academies of science affiliated with AAAS. Eighteen academies organized the Conference in 1926 and there are now forty-four members.

The purpose of the Academy Conference is to serve as a national group to promote mutual cooperation of common aims and purposes of the several academies and to provide appropriate means for consultation on and investigation of the problems and to give others the benefit of their successes and failures.

The Conference meets each year during the AAAS Convention for a one-day conference. Each academy should have a minimum of one representative and preferably two who should be: The official delegate to the Council of the AAAS and the other an officer of the academy. Alternates may represent both.

A constitution was adopted in 1952 and officers are elected annually from the academy representatives. Their officers serve without pay and work throughout the year trying to serve the member academies. The Conference is financed entirely by donations from member academies to extent of \$2.00 per year per 100 members.

The Conference sponsors a Junior Scientists Assembly and a Junior Academy Conference each year during the AAAS Convention.

Each Conference consists basically of: brief reports from each academy representative on the accomplishments of his academy during the year, reports of officers, reports from committees that have been active during the year, roundtable discussions or symposia on academy problems and programs or science programs of interest to all academies, etc. A few of the subjects discussed in recent years are:

- Securing Financial Aid for Publications
- Increasing Income of Academies
- Qualifications for Membership in Academies
- How to Secure More Members in Academies
- Relation of Academies to AAAS
- Relation of AAAS to Academies
- Promotion of Science Within the State by Academies
- Promotion of Junior and Collegiate Academies
- Promotion of Science Fairs by Academies
- Obtaining Publicity for the Academy
- Improvement of Science Instruction in Public Schools
- Administering Research Funds
- How to Secure Research Funds for Academies

A summary of each Conference is mailed to officers of all member academies each year. Each academy secretary or academy representative should glean out pertinent information and present this to the entire academy

or Executive Committee. Several academies publish summaries of the Academy Conference in their Proceedings.

The academy representatives to the Academy Conference should be appointed at least one year in advance of the AAAS meeting and the same person should attend for several years so as to be of increasing value to the Conference and his academy.

The success of the Academy Conference depends on the cooperation from the officers and representatives of the member academies. First: immediately after each academy convention the names and addresses of all officers should be sent to AAAS; Second: the name and address of the conference representatives should be included.

The annual program of the Academy Conference includes summaries of studies made from questionnaires sent to member academies. It is sometimes quite difficult to get responses from all. During 1967 your academy will be requested to send in data on: history of academy, utilization and results of AAAS research grants; Junior Academy activity; results of National Science Foundation grant request; summary of activities of your academy for the year; total membership in Senior, Junior and Collegiate Academies.

Academy officers are urged to communicate with Academy Conference officers who are anxious and eager to assist on academy problems. They may have contacts that can help you.

#### SUGGESTIONS FOR EACH ACADEMY:

Study the membership of your academy and recommend certain of your loyal and energetic members to AAAS as Fellows in AAAS. The recommendation of three Fellows is all that is required.

Make Distinguished Service Awards each year to several in your state who have contributed to the advancement of science; a high school teacher, an active conservationist, or one of your own members who has made your academy successful.

Send announcements of your meetings to officers of academies of neighboring states. Invite academy members of other states to your meetings.

Call on Academy Conference officers for assistance.

Become affiliated with the Science Fair program of your state.

Prepared by Dr. Clinton L. Baker

FIFTH ANNUAL MEETING

of the

AMERICAN JUNIOR ACADEMY OF SCIENCE

Heritage Room, Shoreham Hotel, Washington D. C.

Wednesday, December 28, 1966

PROGRAM I, 9:00 A.M.

Dr. E. L. Wisman, Virginia Polytechnic Institute, Presiding

1. Sawdust Effects on Tilth --- LYN GRANDT, LaGrove High School, Farina, Illinois. (12 min.)
2. Chloroallantoic Studies --- LETANTIA JANKOWSKI, Immaculate Conception High School, Lodi, New Jersey, (12 min.)
3. Developing a Method for Determining Temperatures in a Planetary Nebula --- CAROL ANNE FARLOW, James Madison High School, Vienna, Virginia. (12 min.)
4. Influence of Riboflavin on the Effects of 3-Amino-1, 2, 4-triazole on Schizosaccharomyces octosporus --- ANN COSGROVE, Norman High School, Norman, Oklahoma. (12 min.)
5. A Problem of Coplaner Points and Lines --- Lawrence Meisel, Yorktown High School, Arlington, Virginia, (WJAS). (12 min.)
6. The Effects of Thiouracil on the Thyroid Gland of the Mouse --- PATRICIA PATRIDGE, Mason City Senior High School, Mason City, Iowa. (12 min.)
7. Fossils, The Story of Ancient Life --- LARRY LUNARDI, Notre Dame High School for Boys, Niles, Illinois. (12 min.)
8. Photosynthetic Gas Exchanger in a Closed Ecosystem for Space --- THOMAS PAUL STANOCH, Marist High School, Bayonne, New Jersey. (12 min.)
9. Determination of the Structural Change Involved in Learning in Planarians Through the Application of Retrograd Amnesia --- JOHN GAUGHAN, JR., Homer L. Ferguson High School, Newport News, Virginia. (12 min.)
10. An Algebraic Ring of F-Sequences and Determinant Solutions to Simultaneous Equations in the System --- KEN A. DILL, Putman City High School, Oklahoma City, Oklahoma. (12 min.)

PROGRAM II, 2:00 P.M.

Dr. Wilmer W. Tanner, Brigham Young University, Presiding

11. The Research, Design and Development of the Arc-Jet Engine and Its Application --- GARY HUDSON, St. Bernard's High School, St. Paul, Minnesota. (12 min.)
12. The Feasibility of Coulometric Titrations in the Arsenite-Iodine Systems --- VICTOR LINNENBOM, JR., Gonzaga High School, Washington, D. C. (12 min.)
- 13.. A Comparison of Methods of Interpolation --- DON BARRY, Washington High School, Cedar Rapids, Iowa. (12 min.)
14. A Study of Arterial Lesions in the Nutria --- JOHN DAVID CLARK, South Cameron High School, Creole, Louisiana. (12 min.)
15. Novel Photochemical Reactions of 1, 2-Diphenylcyclopropane in Protic Media --- CHARLES IRVING, Benjamin Franklin Senior High School, New Orleans, Louisiana. (12 min.)
16. Interior and Exterior Ballistics of Smallarms Projectiles --- TED ATLASS, South High School, Denver, Colorado. (12 min.)
17. Conditions Affecting High Voltage Corona Losses --- JAMES G. KEARNEY, Seaholm High School, Birmingham, Michigan. (12 min.)

REGULATIONS

1967

The following regulations have been developed by the American Junior Academy of Science Committee and approved by the Academy Conference Executive Committee to govern the 1967 meeting of the American Junior Academy of Science to be held in New York City on December 28, 1967.

1. Each state and municipal Junior Academy of Science may select no more than two students to present oral research papers. Each academy is responsible for appropriate screening and selection of the participants.
2. Papers presented must be of a research problem type with evidence of creative thought and activity. Twelve minutes will be allowed for each oral presentation and only 2" x 2" slides will be permitted.
3. Cover sheet and Abstract must be submitted to Dr. E. L. Wisman, Department of Biochemistry & Nutrition, Virginia Polytechnic Institute, Blacksburg, Virginia 24061 before September 1.

The cover sheet should contain the paper title, name of author, name and complete address of school, home address, and age of author on December 28 (minimum permitted is 16 years).

The Abstract should be typed double-spaced and not over a page in length. It is anticipated that the abstracts will be published.

4. The paper must report work done during active participation in an activity sponsored by the state or city academy in 1967. Thus, a student who presented a paper in a Junior Academy state meeting in 1967 is eligible even though he is now enrolled in college.

5. Certificates of recognition will be presented to all participants.

6. Although the number of students presenting papers is limited to two per academy, other academy members are invited to attend.

7. Each participant attending the meeting will be required to pay a registration and activities fee of \$15.00. Of this amount, \$5 is for AAAS registration which entitles the participant to full rights and privileges at all AAAS meetings and exhibits. The remaining \$10 will provide for other AJAS educational and recreational activities to be announced later. These fees must be sent to Dr. E. L. Wisman, Department of Biochemistry & Nutrition, Virginia Polytechnic Institute, Blacksburg, Virginia 24061 by December 1.

8. Sponsors and students other than participants attending must pay the \$5 registration fee but the activities fee is required only if they take part in the activities.

9. All participants may attend without chaperonage but chaperones may attend if parents so desire. The AAAS provides no chaperonage.

10. Sponsoring Academies should have insurance coverage to protect student participants. AAAS can assume no liability responsibility. A release form will be provided for signature of parents and participants.

11. The AJAS has no funds that can be used for expenses incurred by the participants. Efforts should be made to solicit local academy and community support for this worthy purpose.

Participation of State Junior Academies in the National Meetings

<u>Philadelphia-1962</u>		<u>Cleveland-1963</u>		<u>Montreal-1964</u>		<u>Berkeley-1965</u>		<u>Washington-1966</u>	
<u>State</u>	<u>No. of Papers</u>	<u>State</u>	<u>No. of Papers</u>	<u>State</u>	<u>No. of Papers</u>	<u>State</u>	<u>No. of Papers</u>	<u>State</u>	<u>No. of Papers</u>
Pa.	2	Pa.	2	---	--	---	--	---	--
So. Dak.	2	---	--	---	--	---	--	---	--
La.	5	La.	2	La.	1	La.	2	La.	2
Tex.	2	---	--	---	--	---	--	---	--
Tenn.	2	Tenn.	1	Tenn.	1	---	--	---	--
Wisc.	1	Wisc.	1	Wisc.	1	---	--	---	--
Wash. D. C.	1	---	--	---	--	---	--	Wash D. C.	2
Va.	3	Va.	2	Va.	2	Va.	2	Va.	2
Okla.	2	Okla.	2	Okla.	2	Okla.	2	Okla.	2
Fla.	2	---	--	---	--	---	--	---	--
---	--	Minn.	1	---	--	Minn.	1	Minn.	1
---	--	Mich.	2	---	--	---	--	Mich.	1
---	--	---	--	Iowa	2	Iowa	2	Iowa	2
---	--	---	--	N. J.	1	N. J.	2	N. J.	2
---	--	---	--	Ark.	1	---	--	---	--
---	--	---	--	Ill.	1	Ill.	2	Ill.	2
---	--	---	--	---	--	Calif.	2	---	--
---	--	---	--	---	--	Utah	1	---	--
---	--	---	--	---	--	Col.	2	Col.	1

## CONSTITUTION OF THE ACADEMY CONFERENCE

Article I. PURPOSES. The purposes of the Academy Conference of the American Association for the Advancement of Science are (1) to provide an organization for the promotion through mutual cooperation of the common aims and purposes of the several state and municipal academies and of the American Association for the Advancement of Science; and (2) specifically, to provide appropriate means for consultation on and investigation of the problems of academies with a view to aiding all in their common purposes and their accomplishments.

Article II. MEETING. The meeting of the Academy Conference will be held annually and shall be open to members as described herein and to interested guests.

Article III. MEMBERSHIP. Membership shall be composed of two representatives from each affiliated academy. One of these shall be the officially designated delegate to the Council of the American Association for the Advancement of Science; the other shall be an officer of the affiliated academy. In the event either or both of the above shall be unable to attend a meeting of the Academy Conference, the officers of the academy concerned may appoint duly accredited alternatives.

Article IV. OFFICERS. The officers of the Academy Conference shall be (1) a president-elect, who shall serve for one year, following which he shall become president; (2) a president, who shall have served one year as President-elect, and whose term of office shall be one year; (3) a retiring president, whose term of office shall be one year following his retirement as president; and (4) a secretary-treasurer, who may be continued in office by re-election not more than three years. The president-elect and the secretary-treasurer shall be elected by a vote of a majority at the annual meeting. An Archivist shall be appointed annually by the Executive Committee and shall be eligible for reappointment.

### Article V. COMMITTEES.

Section 1. Committee membership shall, as far as possible be representative of the wide geographical distribution of the affiliated academies.

Section 2. There shall be an Executive Committee composed of the elected officers of the Academy Conference.

Section 3. A nominating committee shall be appointed by the President at a reasonable time before the annual meeting.

Section 4. A Committee to Sponsor the Junior Scientists Assembly shall be appointed by the President.

Section 5. Special committees shall be appointed by the President as the occasion may demand.

## Article VI. AMENDMENTS.

Section 1. Amendments to this Constitution may be proposed by majority vote of the Executive Committee or by majority vote of the members present at an annual meeting.

Section 2. The Constitution may be amended when the following requirements shall have been met: (1) the proposed amendment has been submitted to an annual meeting one year prior to the date on which action may be taken; and (2) the proposed amendment has been approved by a two-thirds vote of members voting at the time action is taken.

Article VII. STANDING COMMITTEES. Standing Committees shall be appointed by the President subject to the approval of the Executive Committee. These standing committees shall be composed of three members with a rotating membership, one member being appointed to each committee each year. Standing committees are: Junior Academies, Collegiate Academies, and Program.

## BY-LAWS OF THE ACADEMY CONFERENCE

Article I. The annual meeting of the Academy Conference shall be held with the annual meeting of the AAAS.

Article II. Election of officers

- a. At least three months prior to the annual meeting the President shall appoint a Nominating Committee consisting of at least three members.
- b. The Nominative Committee shall submit nominations for President-elect and Secretary-Treasurer at the first session of the business meeting. Nominations may also be made from the floor and the election shall take place immediately.
- c. Newly elected officers shall assume office immediately following adjournment of the last session of the annual meeting at which they are elected.
- d. The officers shall continue to serve until replacements are duly elected. If the annual meeting is not held or a quorum is not present, the Executive Committee may conduct an election by mail ballot.
- e. A vacancy in the Executive Committee or any office shall be filled by appointment by the remaining members of the Executive Committee

Article III. Executive Committee

- a. The governing body of the Academy Conference between sessions shall be the Executive Committee. It shall be the duty of this committee to administer policy as determined by the membership or as stated in the Constitution and By-Laws.

#### Article IV. Duties of Officers

- a. President. The President shall appoint all Committees, shall preside at all business meetings of the Conference and the Executive Committee, and shall perform such other duties as ordinarily pertain to such office. The President shall be an ex-officio member of all Committees, except the nominating committee.
- b. President-elect. The President-elect shall have the duty of familiarizing himself with all Conference affairs and preparing himself for assuming the presidency. He shall work under and in cooperation with the President. In the event of the death or resignation of the President during his term he shall thereupon become President for the remainder of the unexpired term and for which he was originally elected.
- c. Secretary-Treasurer. It shall be the duty of the Secretary-Treasurer to keep the records of the membership, record the attendance at the meetings, send out notices of meetings, record and preserve the minutes of such meetings and make reports of all meetings to the membership; to notify officers, committees and members of their appointment, and to furnish committees with all papers referred to them; to conduct the correspondence of the Conference, and perform such other duties as customarily pertain to such office. As treasurer he shall have custody of all funds, accounting for same to the Conference at its annual meeting, and at any other time upon request of the Executive Committee, and to perform such other duties as customarily pertain to this office.
- d. Archivist. The duties of the Archivist shall be to preserve and keep on file the records of the Conference.

#### Article V. Quorum.

- a. Members representing twenty percent or more of the affiliated academies shall constitute a quorum at any meeting of the conference.
- b. Three or more elected officers shall constitute a quorum of the Executive Committee.

#### Article VI. Rules of Order. Parliamentary Procedure in all meetings of the Academy Conference and of its Committees shall be in accordance with Robert's Rules of Order.

#### Article VII. Amendments. These by-laws may be amended by a two-thirds vote of the members voting any meeting of the Conference provided a quorum is present. No amendment or addition to these by-laws shall be made which is not in conformity with the Constituion and By-Laws of the American Association for the Advancement of Science.

(Revised December 28, 1958)

ACADEMY CONFERENCE  
Fiscal Statement for 1966

Brigham Young University Credit Union Account

Income

March 1	Deposit (Received from Harry Bennett)	\$1,000.00	
July 1	Interest Dividend (Semi-Annual)	15.00	
July 29	Balance on hand - City National Bank, Eaton Rouge, Louisiana	855.30	
August 17	Deposit - Washington Academy of Science	<u>21.62</u>	
	Total deposited	\$1,891.92	

Expenditure

March 1	To Checking Account	<u>\$ 100.00</u>	
	Total on deposit		\$1,791.92

BYU Agency Fund - Academy Conference  
849-05-033-00

Income

March 1	Deposit (from Credit Union	\$ 100.00	
November 1	Deposit - Ohio Academy	<u>52.28</u>	
	Total deposited	\$ 152.28	<u>\$ 152.28</u>
			\$1,944.20

Expenditures

January	Telephone Calls	\$ 11.10	
June	Telephone Calls	.60	
July	Telephone Calls	2.60	
September	Telephone Calls	8.45	
December	Telephone Calls	<u>3.70</u>	
	Subtotal	\$ 26.45	
October	Supplies	\$ 7.13	
	Mailing and Postage	8.58	
December 1	Publication of Academy Conference Directory and Proceedings (250 copies)	241.88	
December 2	Mailing costs to BYU (the Directory)	<u>10.88</u>	
	Total Expenditures	\$ 294.84	<u>\$ 294.84</u>
	Free Balance		\$1,649.36*

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Wilmer W. Tanner  
Secretary-Treasurer

\*All funds are handled through University accounts and are audited by University and Credit Union auditors.